

INTEGRATED ASSESSMENT REPORT

for:

CLIFFS CONTAINER ROMEOVILLE, ILLINOIS

ILD 000767481

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INTEGRATED ASSESSMENT REPORT CLIFFS CONTAINER

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1.0 SITE BACKGROUND

1.1 INTRODUCTION

On September 30, 2000, the Illinois Environmental Protection Agency's (IEPA) Office of Site Evaluation (OSE) was tasked by the U.S. Environmental Protection Agency (U.S. EPA) to conduct an Integrated Assessment (IA) of the Cliffs Container Company (currently named PKG Containers) (ILD041869023) located in Romeoville, Illinois. The IA is performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

On June 1, 1980 Cliffs Container was placed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) in response to concerns that past and current site activities may have resulted in the release of chemical substances, associated with processes associated with drum recycling, into the environment. The substances had/have the potential to enter the environment through four environmental pathways; groundwater, surface water, soil exposure and air releases thereby endangering the life and health of wildlife and human populations. The potential for contamination exists both onsite and in nearby offsite locations. This potential stems from a number of factors as follows: The facility had been active as a drum recycling/restoration business for approximately 25 years (1970 - 1995); disposal of residual material, contained in drums, on-site; caustic wash solution and drum contents disposed on-site in unlined pits; drum contents and wash solution released to Des Plaines River; and the proximity of two non-community drinking water wells west of the facility.

A Preliminary Assessment was conducted by a federally funded contractor, under

authority of the United States EPA Region V office in Chicago, in March, 1984. The site was given a low priority. Subsequent federal lead activities at the site consisted of: a Site Inspection (1984) and HRS Package (1986) that resulted in a recommendation of no further action needed, and another Preliminary Assessment (1993) that deferred the facility to the Resource Conservation and Recovery Act (RCRA) program to pursue corrective action. The facility was found not to be subject to RCRA's corrective action authority. USEPA Region V refers to these sites as RCRA Handlers. In September 2000, the Illinois EPA conducted a RCRA Handlers inspection at Cliffs Container and determined that further investigation was required due to the above mentioned concerns.

The purpose of an Integrated Assessment has been developed from USEPA directive and guidance information which outlines Site Assessment strategies. The information states:

An Integrated Assessment will be conducted to:

- 1) Collect data which would satisfy both site assessment and remedial program. This would incorporate hazardous waste, surface water, air, and groundwater concerns.
- 2) The objectives of the assessment are to determine whether time or non time critical removals are warranted and to determine whether the site is of National Priorities List (NPL) caliber. If the determination is made that the site is of NPL caliber, additional data will likely be needed to complete the assessment. A sampling plan to accommodate the removal and site assessment needs, as well as initial remedial needs should be developed.
- 3) Determination of site sampling needs will be accomplished with an understanding to assure adequate data for the removal assessment and the preparation of the Hazard Ranking System (HRS) score as well as the need for possible initial sampling for the remedial investigation. Based on the preliminary HRS score and removal program information, the site will then either be designated as No Further Action (NFA), or carried forward as a NPL listing candidate. Sites that are designated NFA or deferred to other statutes are not candidates for an Integrated Assessment.

4) Upon completion of the data gathering, there will be a determination of whether the site should be forwarded within the Superfund process, either through the remedial or removal programs.

The initial assessment of a site as it enters the Superfund program within Region V will be conducted by either a Regional On-Scene Coordinator (OSC) and a Site Assessment Manager (SAM) or IEPA personnel. An OSC and a SAM will be assigned for all new sites entering the Regional Superfund program. If an emergency is found to exist, U.S. EPA or IEPA emergency removal staff will be immediately contacted for action. If the site needs further Superfund activities, a Site Assessment Team (SAT) will be formed. A SAT Team will be comprised of an IEPA representative, the SAM, an OSC, and a Regional Project Manager (RPM). As necessary, additional data can be generated for the SAT to make a recommendation to the Regional Decision Team (RDT) for further possible action.

The Integrated Assessment will address all the data requirements of the revised HRS using field screening and NPL level Data Quality Objectives (DQOs) prior to data collection. It will also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for NPL listing and have not been deferred to another authority will receive an Integrated Assessment.

Personnel of Illinois EPA's Office of Site Assessment prepared a work plan for IA field activities, which was submitted to U.S. EPA Region V on April 17, 2001. The field activity portion of the IA was conducted on May 23 - 25, 2001. The activities of the IA included a reconnaissance inspection, an internal file review, information collected from external sources and the collection of fourteen soil samples, six sediment samples, two groundwater samples, and three drinking water samples. Thirteen of the soil samples, one groundwater sample, and two sediment samples were collected from facility property. None of the drinking water samples were collected from facility property. The background soil sample was collected from Will County Forest Preserve property, west of Cliffs Container. The background sediment sample was collected from the west bank of the Des Plaines River, north of the facility. Duplicate and background samples of each media are included in the number of samples mentioned above.

The Illinois EPA performed IA activities at the site to determine whether, or to what extent, the site poses a threat to human health and the environment. The IA report presents the results of Illinois EPA's evaluation and summarizes the site conditions and targets of concern. It also addresses the migration and exposure pathways associated with the site.

1.2 SITE DESCRIPTION

The Cliffs Container facility is located near the east-central corporate boundary of the Village of Romeoville, Illinois on property with the address of 525 E. 135th Street (Romeoville Rd), Lockport Township, Will County (Figures 1 and 2). The site is located on a small island in the Des Plaines River approximately ten acres in size, situated in the extreme northeast corner of Section 3, township 36 North - Range 10 East. The island is bisected east to west by 135th Street. The north half of the island is part of the Isle A La Cache County Forest Preserve. The south half is occupied by Cliffs Container and vacant property owned by Commonwealth Edison (Figure 3). The former container facility occupies approximately one and one half acres at the north end of the southern portion of the island. The highest point of elevation on the island, adjacent to 135th Street and near the center of the facility, is approximately ten to twelve feet above the Des Plaines River at normal pool level. The site is the location of a former drum recycling/restoration business, operating from approximately 1970 to 1997 when the facility formally ceased doing business. While in operation the facility provided drum restoration to offsite customers. Empty 55-gallon steel, polyethylene, and fiber drums were picked up, transported to the facility, residuals dumped or washed out and resold to off-site customers. The facility consists of one building in the center of the property with former drum storage areas in the front

(north) and rear (southeast) of the structure. A tank located inside the building, toward the central east portion of the structure, served as the drum wash area. The wash tank would drain via floor drain to an unlined pit, south of the building. Wash water would then discharge to the Des Plaines River via an unlined trench. In 1980 the pit was replaced by two side-by-side interconnected five hundred gallon steel underground storage tanks which discharged to the river via pipe, instead of the trench. The discharge was not regulated by a National Pollutant Discharge Elimination System (NPDES) permit which would have been issued by the IEPA. The waste stream generated by the facility was waste wash water which may have contained chlorinated solvents, oils, and/or inorganic constituents. Land use within one-quarter mile of the Cliffs Container facility is primarily light industrial. Commonwealth Edison property and an associated power plant are located immediately to the east of the facility. Beginning at approximately onehalf mile to the west, commercial businesses and residential areas become more numerous. Single-family residences make up the majority of the residential property within four miles of Cliffs Container facility. Multi-family dwellings are interspersed within these urban residential areas. Rural areas become more prominent beyond two miles from the facility. Immediately to the west, across the Des Plaines River, and north of the facility is the Isle A La Cache County Forest Preserve. The forest preserve area to the west also includes a forest preserve museum and learning center, the Isle A La Cache Museum. The museum is visited daily during the week by school children when school is in session. Bordering the Cliffs Container facility to the north is 135th Street (Romeoville Road) across which is forest preserve and the Des Plaines River, south by Commonwealth Edison property (formerly a private residence) beyond which is the Des Plaines River, east by the Des Plaines River beyond which is a Commonwealth Edison power

plant and west by the Des Plaines River beyond which is forest preserve that includes the museum and learning center.

Surface soil on the Cliffs Container property consists of silty clay, silty sand and sandy clay. Gravel covers the soil in a number of locations on this property. Cliffs Container property is located in an area of northeastern Illinois where surficial terrain has been shaped by various types of glacial action and deposition, and riverine dynamics and morphology. The land surface has been modified by glacial activity into the gently rolling terrain surrounding the Des Plaines River flood plain. Modifying this terrain was the transport of glacial outwash and the meandering of the Des Plaines River to form it's flood plains and down cuts. Cliffs Container property slopes to the south, away from 135th Street, but is relatively flat and lies at approximately 590 feet above mean sea level (MSL). The topography surrounding the property (within three-quarters of a mile) is also relatively flat and lies at basically the same distance above MSL. Beyond this point topography rises and undulates.

1.3 SITE HISTORY

The property currently occupied by Cliffs Container Company was formerly the site of a small motel. The motel was constructed around 1950 and operated until the late 1960's. After going out of business, the motel was purchased by Mr. Cliff Dorian who used a portion of it as an office. The motel subsequently burned to the ground in the early 1980's prompting the construction of the current corrugated steel pole building. Cliffs Container Company began operating in 1970 and had been active until 1997 as a drum restoration /recycling facility. During the time period of 1970 to 1980 the owner picked up empty 55-gallon steel, polyethylene and

fiber drums from customers and transport them to his facility. The steel and poly drums were emptied of residuals, washed out with caustic solution in a wash bath, rinsed, stacked outdoors to dry and resold. Residual dry matter in the fiber drums was removed to the floor of the facility and later rinsed down a floor drain, which led to an unlined wastewater holding pit. This holding pit also received rinse water from the drum wash process. Wash water would then discharge to the Des Plaines River via an unlined trench. Due to property owner comments and IEPA file information, potentially hazardous materials may have been contained in some of these drums. If the drums contained an ignitable product the owner would combine the residual material with diesel fuel and burn it in the furnace used to heat the building. After 1980 the facility ceased washing and rinsing drums. Since that time drums were only bought, transported and sold. The majority of the drums handled during this time period were indicated to formerly contained food products such as molasses, vinegar, and fruit juices. The owner states that no drums have been washed since 1980. There is no evidence that Cliffs Container used any type of containment system to prevent the migration of contaminants into the environment from wastes placed into the pit, tanks or on the ground surface.

1.4 REGULATORY STATUS

Cliffs Container Company has only had a few complaints registered against it, mainly due to drums floating in the Des Plaines River after flood events. The facility is not regulated by RCRA and is not subject to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Atomic Energy Act (AEA), or Uranium Mine Tailings Radiation Control Act (UMTRCA).

2.0 INTEGRATED ASSESSMENT ACTIVITIES

2.1 INTRODUCTION

This section contains information gathered during the preparation of the formal CERCLA Integrated Assessment and previous Illinois Environmental Protection Agency's activities involving the Cliffs Container Company site. Specific activities included an internal file search, field reconnaissance inspections, site representative interviews, and a sampling visit of the surrounding area and the facility.

2.2 RECONNAISSANCE ACTIVITIES

On March 8, 2001, personnel of Illinois EPA's Site Assessment Unit conducted a reconnaissance inspection of the Cliffs Container Company property and surrounding area. Upon arrival at the facility contact was made with the owner. Introductions took place followed by a short discussion regarding the purpose of the reconnaissance and that the sampling team would be utilizing the IEPA Geoprobe to obtain soil samples on the property. The owner and the author then proceeded to tour the property. The inspection consisted of talking with the owner, conducting an escorted walk through of the facility and identifying various former drum storage areas and items and equipment associated with the former drum washing process. The building, which remains in good condition, is approximately sixty-five feet across the front, east to west, including a recessed loading dock at the west end, and approximately fifty feet front to back (north to south). The building is set back from 135th St. approximately forty feet to the south.

Drums brought to the facility were either off loaded at the loading dock, in the building, or outside and stored in areas referred to as the front drum storage area or rear drum storage area.

Once drums were brought inside the building they were cleaned in a 135 cubic foot open top steel tank formerly containing a caustic wash solution. This tank is located approximately in the central-east portion of the building on a concrete floor adjacent to a floor drain. Just west of the wash tank is the buildings' furnace, which at times would use a fuel mixture previously discussed. The floor drain, previously mentioned, received caustic rinse water from the former drum washing operations. There also was a one-time discharge of approximately forty gallons of caustic solution in the early 1980's, which occurred after the drum washing process ceased. The floor drain flowed to a wastewater holding unit located south of the building. This unit originally consisted of an unlined pit about two hundred fifty cubic feet in size and an unlined trench which discharged to the Des Plaines River. In 1980, two inter-connected five hundred-gallon steel under ground storage tanks (USTs) were installed in the pit to receive rinse water. Discharge from the new wastewater holding unit continued to be to the Des Plaines River but was via a pipe instead of the, previously mentioned, trench. According to the owner, all equipment remains at the facility, however, none are active. Although not noted during the reconnaissance, the UST's may still be discharging to the river. The owner never indicated that the drain pipe had been sealed.

Observations of the outdoor property included noting that two trucks containing drums were located in the southeast portion of the site parked approximately twenty feet from the river. One contained fiber drums, the other contained steel drums labeled flammable and acetone. All drums appeared empty. Approximately twenty other drums were noted to remain in both, the front and rear drum storage areas. The site appears to have had three feet of fill material and gravel road pack applied to the east and west rear portions of the property. Both of these areas

formerly had trenches leading to the Des Plaines River. There were no stains or evidence of a previous release at any location on site. Miscellaneous equipment and debris was strewn about the interior of the building while the majority of the outdoor items were at the east rear, including an old pick-up truck with a camper top, an old tractor, small motors and other scrap items. The majority of the sites ground surface consists of soil, weeds, white gravel, and concrete. No organized landscaping exists at this facility. Vegetation on the property, at the perimeter of the property, and off the property consists of varying amounts of grass and weeds with some bushes and trees. Larger vegetation such as bushes and trees bordered the facility along the south property line and along the east edge of the property, adjacent to the east channel of the Des Plaines River. Along the east and west sides of the property, broken concrete rip-rap has been placed at the rivers edge to protect the banks from erosion.

The nearest individual and occupied structure is located off site at the Isle A La Cache Forest Preserve Museum. The structure is located approximately 600 feet west of Cliffs Container western property boundary.

Surface water runoff from Cliffs Container follows facility topography and slope, channeling runoff to the south portion of the property and then either east or west into the Des Plaines River. Although much of the moisture on site does drain to designated locations a moderate amount also infiltrates into the silty, sandy soil and into area groundwater. A 15-mile surface water drainage route map identifying surface water migration is provided in Appendix A. Appendix A also provides a 4-mile radius groundwater migration map identifying areas of potential impact.

The Cliffs Container property is entirely accessible except from the south. The southern

property boundary is fenced with eight-foot high chain link fencing topped with three strands of barbed wire. A chained and locked access gate is integrated into the fence near its east end.

While walking the property, air monitoring was conducted by use of a Foxboro Toxic Vapor Analyzer (TVA) meter. Monitoring of the breathing zone, near the soil surface and near the various drums occasionally registered slightly above background readings (1 - 2 meter units). No peculiar or extremely unusual site characteristics were noted during the survey. Further inspection along the banks of the Des Plaines River adjacent to and downstream of Cliffs Container revealed signs of recreational use on this property, ie; discarded fishing tackle, deposits of beverage containers, cigarettes, etc. Signs of animals were also present on the property. The Illinois Department of Natural Resources Division of Fisheries indicates that the Des Plaines River in Will County is considered a fishery.

During the reconnaissance the author placed flags at potential sample locations throughout the property. Due to the use of the Geoprobe, once the locations were marked, the owner was asked to check the locations to assure no underground utilities or piping would be affected. Additional information attained during this reconnaissance along with information gathered on September 19, 2000 can be found in the site description in Section 1.2 of this report.

2.3 REPRESENTATIVE INTERVIEWS

A site representative interview was conducted over the telephone between IEPA personnel and the property/business owner during September 2000 prior to a preliminary site visit. Another short interview with the owner was conducted on May 23, 2001 just prior to the actual Integrated Assessment sampling activities. The interviews were conducted to inform the

site representative of IEPA's intentions, to talk about past, present and future activities and problems, explain the CERCLA site assessment process, and to confirm proposed sampling locations. The plans involved the collection of fourteen soil, six sediment, three drinking water, and two ground water samples (which includes a duplicate sample for each matrix) from on and off site. Samples were to be collected by utilizing IEPA's Geoprobe, a direct push technology; stainless steel bucket auger or stainless steel trowel. The type of equipment used to collect the samples depended on the various sample locations and location characteristics on and off site. Each sample location was chosen to determine if contamination existed at a specific area on Cliffs Container property and whether a contaminant was attributable to the facility. The Geoprobe was being used to collect soil samples anywhere from the ground surface to the top of the water table. The purpose was to determine if contaminants were present in native soil beneath Cliffs Container property and/or near the water table. After confirming the sample locations for the site representative the sampling team began the site sampling process. The owner was also asked whether any accidents, resulting in injuries, had occurred on-site. He indicated that none had occurred. The IEPA inspection team leader and the owner also discussed the various types of contaminants that were potentially present on-site due to past practices. He was informed that chemical constituents may include various heavy metal, polynuclear aromatic hydrocarbon (PNA), polyaromatic hydrocarbon (PAH), and volatile compounds.

2.4 SAMPLING ACTIVITIES AND RESULTS

On May 22 & 23, 2001, Illinois EPA personnel collected fourteen soil, six sediment,

three drinking water, and two ground water samples from within the Cliffs Container property and immediate area surrounding the property. Soil samples consisted of thirteen soil samples collected from within the property boundaries of Cliffs Container, and one soil sample offproperty, serving as the background sample. This sample was located west of the Des Plaines River approximately two hundred fifty feet west of the west property boundary of the facility on forest preserve property. Sediment samples consisted of two sediment samples collected from the Des Plaines River adjacent to the Cliffs Container property, two sediment samples collected from the river upstream of the property and one collected downstream. Drinking water samples consisted of three samples collected from the Isle A La Cache Forest Preserve property. Two were collected from the museum and one from an artesian well located approximately two hundred feet west of Cliffs Container west property boundary. Groundwater samples consisted of one on-property location and one off-property location. The off-property location is south of the facility and is an artesian well that was used by the former residents of the property. The home has been razed, however, the well remains flowing. The on-property samples were collected to determine the type of contaminants present and concentration of the contaminants. The off-property samples were collected to serve as a baseline for constituents which may be common in area matrices and to determine if contaminants were migrating off-site. Additional discussions concerning the analytical results of these samples and their impact on the various migration pathways may be found in Section 4.0 of this IA report (Migration Pathways). Figure 4 illustrates the locations of each sample. Tables 1 - 4 provide an overall summary of soil and sediment samples collected during this IA investigation. Tables 5 - 8 provide an overall summary of groundwater and drinking water samples. Tables 9 - 12 (Soil and Sediment Key

Sample Summary Tables) and Tables 13 - 16 (Groundwater and Drinking Water Key Sample Summary Tables) provides a summary of key samples depicting contaminants detected at concentrations at least three times background levels.

Analysis of the thirteen soil samples (X101 - X113) collected from the Cliffs Container property revealed estimated low levels of several volatile constituents, estimated and quantitative levels of a number of semi-volatile constituents, and estimated and quantitative levels of several pesticide and inorganic constituents. Sample X114 was designated as the background soil sample. Analysis of X114 indicated estimated quantities of a few volatile and semi-volatile constituents, a few estimated and a few quantitative pesticide/PCB constituents, and a few elevated inorganic constituents.

Analysis of the two sediment samples (S102 & S103) collected from the Cliffs Container property revealed estimated levels of several volatile constituents, a number of semi-volatile constituents with estimated and elevated quantitative levels, and estimated and quantitative levels of several pesticide/PCB and inorganic constituents. Samples S104 and S105 were designated as background sediment samples. Analysis of S104 and S105 indicated estimated quantities of a few volatile constituents, a number of semi-volatile constituents with estimated and quantitative levels, a few estimated and a few quantitative pesticide/PCB constituents, and a few elevated inorganic constituents. Due to similar constituent quantities reported by the analytical laboratories in these two samples all comparative analysis of sediment samples will be compared to background sample S104.

Analysis of the one groundwater sample (G102) collected from the Cliffs Container property revealed a few estimated and one elevated volatile constituent, non-detectable quantities

were reported for semi-volatile and pesticide/PCB constituents, and various quantitative levels of inorganic constituents. Analysis of the four samples (G101, G201 - G203) collected off property indicated non-detectable levels of volatile constituents in all samples, non-detectable levels of semi-volatile constituents in all samples except G201 which was indicated to contain a low estimated value of one constituent, non-detectable levels of pesticide/PCB constituents in all samples except G101 which was indicated to contain a low estimated value of one constituent, and quantitative levels of inorganic constituents. No specific groundwater sample was designated as background. Evaluation of groundwater will be completed based on drinking water standards. All samples were analyzed for the Target Compound List constituents.

All soil and sediment samples contain various volatile constituents at levels equal to or greater than three times background levels (Table 9), thereby, meeting observed release criteria. None of the constituents exceed USEPA designated Removal Action Level (RAL) benchmarks or the Superfund Chemical Data Matrix (SCDM) benchmarks. All soil and sediment samples except X104 and X105 contain various semi-volatile constituents at levels equal to or greater than three times background levels (Table 10), thereby, meeting observed release criteria. None of the constituents exceed RAL's, however, the level of benzo(a)pyrene exceeds the SCDM benchmark in samples S102, S103, S105, X103, and X106. All soil and sediment samples except X107 contain various pesticide/PCB constituents at levels equal to or greater than three times background levels (Table 11), thereby, meeting observed release criteria. None of the constituents exceed RAL's or SCDM benchmarks. Samples S103, S104, X101 - X105, X110 - X113 contain one or more inorganic constituent at levels equal to or greater than three times background levels (Table 12), meeting observed release criteria. None of the constituents exceed

RAL's or SCDM benchmarks. Groundwater sample G102 exceeds the SCDM benchmark for methylene chloride (Table 13). Sample G102 also exceeds SCDM benchmarks for arsenic, beryllium, and manganese (Table 16). Drinking water samples G201 - G203 and the Field Blank contained beryllium exceeding the SCDM benchmark (Table 16).

For a list of semi-volatile compounds considered to be polynuclear aromatic hydrocarbons (PNA's), please refer to the Target Compound List found in Appendix B.

A complete analytical data package for the Cliffs Container Company facility is located in Appendix D, under a separate cover in Volume 2 of the IA report.

Photos of IEPA's May 2001 sampling event are located in Appendix C of this report.

3.0 SITE SOURCES

3.1 CONTAMINATED SOIL (CLIFFS CONTAINER PROPERTY)

During the May 2001 IA sampling event thirteen soil samples were collected from various locations on the Cliffs Container Company property. Analysis of the samples indicated various contaminants above background concentrations with some being three or more times above background concentrations, which meet observed release criteria (reference Tables 9 - 12). In addition to the May 2001 samples, sample analysis of water in the wastewater holding area, collected in 1984, were utilized to assist in defining current sources and determine soil contaminant concentrations and persistence. The 1984 sample analysis was used as historical information in assisting in defining current sources. The May 2001 samples, utilized for determining the contaminated soil source, were collected within the upper two feet on Cliffs Container property. According to the HRS definition of a source when referring to contaminated soil, any area where a hazardous substance has been deposited, stored, disposed, or placed, plus those soils that have become contaminated from the migration of a hazardous substance is considered a source. Based on this definition, sample data and measurements from known points of contamination, the source has been calculated to be an area of approximately one acre (43,560 square feet).

3.2 SURFACE IMPOUNDMENT/BELOW GROUND TANK

The wastewater holding area/pit, located south of the building, was originally an unlined pit approximately two hundred fifty cubic feet in size. In 1980, two inter-connected five hundred

gallon UST's were installed in the pit to receive waste rinse water. During the May 2001 IA samples were collected within the area formerly occupied by the wastewater holding pit (X110 & X112). Analytical results of the samples indicated the presence of constituents from each, the volatile, semi-volatile, pesticide/PCB and inorganic fractions of the TCL. A few of the constituent concentrations are three times above background, meeting observed release criteria (reference Tables 9 - 12). In addition to the May 2001 samples, sample analysis of water in the wastewater holding area, collected in 1984, were utilized to define the current source and determine contaminant concentrations and persistence. The 1984 sample analysis was used as historical information in assisting in defining the current source. This source has been calculated to contain a volume of approximately two hundred fifty cubic feet.

4.0 MIGRATION PATHWAYS

4.1 GROUNDWATER

According to the Illinois State Geological Survey and the Illinois State Water Survey the Cliffs Container facility is situated in an area where very thin glacial outwash deposits overlie bedrock. Natural surficial deposits are between approximately two feet and twelve thick and modified by alluvial action. Shallow bedrock in the vicinity of the facility is Silurian dolomite, which is approximately two hundred fifty feet thick. The glacial outwash deposits and the shallow dolomite bedrock are considered the shallow aquifer in the area. This aquifer is likely to be saturated up to the elevation of the Des Plaines River, which is a local discharge zone. Underlying the dolomite is Maquoketa Shale which serves as a confining layer between the shallow and deep aquifer. Beneath the shale, the deep aquifer consists of Ordovician and Cambrian dolomites and sandstones.

Site specific geology was determined by use of the IEPA Geoprobe. While the Geoprobe was used to collect soil samples, site specific geology was also examined. Site geology consisted of coarse gravel/road pack from ground surface to between six inches and one foot followed by silty clay with some sand intermixed and thin stringers of fine to coarse gravel from one foot to three or four feet in depth. Following is silty and or silty, sandy clay from four feet to six or seven feet in depth. Advancement of the Geoprobe sampling tool was refused at a maximum depth of seven feet below ground surface. Material causing refusal was weathered limestone/dolomite bedrock.

Groundwater at the facility is encountered at approximately five feet below ground surface (bgs). A well formerly used on-site, now sealed, drew water from about eighty feet bgs. The

frequently for drinking water, as is the well providing drinking water at the Isle A La Cache Museum. Information pertaining to the depths of the wells sampled was not available. Illinois State Water Survey (ISWS) records indicate that the Village of Romeoville obtains drinking water from nine municipal wells ranging in depth from 150 to 1500 feet bgs. Six wells draw water from the shallow bedrock aquifer and three draw from the deep aquifer. The nearest public well is located approximately one and nine tenths miles northwest of Cliffs Container. Approximately 14,400 persons are served by this water system. Area residents located outside the Romeoville municipal water system are supplied by private wells drawing from the shallow bedrock aquifer. The nearest private well is located about one half-mile west of the facility. The potential for contaminants to enter the drinking water supply would appear to be high, however, there were no contaminants detected above drinking water standards in any of the wells sampled or groundwater sampled beyond Cliffs Container property (reference Tables 13 - 16). Analysis of the groundwater sample collected on the Cliffs Container property (G102) indicated the presence of two volatile constituents and four inorganic analytes which exceeded SCDM or MCL drinking water benchmarks, or, as in the case of the constituent 2-Butanone (which currently has no benchmarks), was noted to be significantly greater in quantity than results for 2-Butanone in the other samples.

artesian well in the forest preserve approximately two hundred feet west of the facility, is used

Flow direction of groundwater beneath the facility was not determined during this investigation. However, according to Illinois State Water Survey Bulletin 60-4, groundwater in the area surrounding the facility follows eroded bedrock surfaces at depth, which dip toward the west. Groundwater also follows old eroded valleys.

The Illinois State Water Survey (ISWS) records also indicate that, in addition to Romeoville; Lemont, Lockport, and Lockport Heights are utilizing groundwater as a source of drinking water. Lemont uses three wells in serving 11,400 residents, Lockport uses three wells in serving 12,800 residents, and Lockport Heights uses three wells in serving 1,200 residents. All of the wells are between two hundred fifty and seventeen hundred feet deep and extracting water from both, the shallow and deep aquifers. Romeoville, Lockport, and Lemont utilize both aquifers. Lockport Heights utilizes only the shallow aquifer. According to Illinois State Water Survey records, there are approximately 292 private wells (serving 899 people) within four miles of the Cliffs Container facility using the alluvial/glacial outwash/shallow dolomite aquifer. Total population using the shallow aquifer is 40,699. Within a four-mile radius of the Cliffs Container facility there are no private drinking water wells penetrating the deep Ordovician and Cambrian dolomite and sandstone aquifer. The two aquifers are not hydraulically interconnected due to separation by the presence of the Maquoketa shale, which is continuous throughout the area.

Records obtained from the Illinois State Water Survey (ISWS) indicate that there are numerous industrial/commercial (I/C) wells pumping groundwater from the alluvial/glacial outwash/shallow dolomite formations and also the deep dolomite and sandstone formation, throughout the Romeoville, Lemont, and Lockport area. The industrial/commercial wells are drawing water from between twenty feet and fifteen hundred feet below ground surface.

Numerous non-community wells, drawing drinking water from the shallow aquifer, also exist within a four-mile radius of Cliffs Container.

A listing of the number of public and private wells and approximate number of users in

each distance category are presented below.

Number of wells and users within 4-miles of Cliffs Container Company

Distance	Groundwater Wells	Private Well Population	Public Well <u>Population</u>
0 - 1/4 mile	. 0	0	0
1/4 - 1/2 mile	20	62	0
2 - 1 mile	55	169	0
1 - 2 miles	63	194	14,400 (Romeoville)
2 - 3 miles	, 68	209	0
3 - 4 miles	86	265	25,400 (Lemont, Lockport, & Lockport Heights)

The private well population was calculated using USGS topographic maps for the area surrounding the facility and 3.08 people per household in Will County, as established by the U.S. Census Bureau (1990). Public well information obtained from the Illinois State Water Survey.

4.2 SURFACE WATER

As mentioned in Section 2.2, surface water runoff from the Cliffs Container facility follows facility topography and slope, channeling runoff to the south portion of the property and then either east or west into the Des Plaines River. Although much of the moisture on site does drain to designated locations a moderate amount also infiltrates into the silty, sandy soil and into area groundwater. Any drainage not infiltrating into the soil will either pool, evaporate or run off

into the Des Plaines River. Periodic seasonal flooding also occurs at the facility. The owner notes that on occasion it was necessary to retrieve drums that had floated down stream after the island had been inundated by flood waters. Due to the facility being within the Des Plaines River, any drainage, including any contaminants, flows directly from Cliffs Container property into the River. The probable point of entry (PPE) to surface water is therefore at the propertyriver interface on, both, the southeast (S102) and southwest (S103) corners of the site. The 15-mile in-water segment of the surface water pathway begins at both points on either side of the island and continues downstream to one mile north (end of the 15-mile in-water segment or Target Distance Limit (TDL)) of Treat Island, which is two and one half miles upstream of Channahon. There are no surface water intakes along the 15-mile in-water segment of the surface water route. The Illinois Department of Natural Resources Division of Fisheries has identified the Des Plaines River in Will County as a fishery. Wetlands exist along and outside both banks of the river. The open channel of the Des Plaines River is described as a riverine, lower perennial, unconsolidated bottom, permanently flooded environment. Along and outside both banks of the river channel is described mainly as palustrian, forested, broad-leafed deciduous, seasonally flooded environments.

Sediment samples collected during the May 22 & 23, 2001 Integrated Assessment were from locations upstream, and downstream from the facility, and adjacent to the facility. Analysis indicates contaminants of similar concentrations on the west side of the island, both upstream (S105/S106) and at the facility (S103). Along the east side of the island, contaminant concentrations increase significantly at the facility (S102) compared to the upstream sample (S104). Analytical data from the downstream sample (S101), at the extreme southern tip of the

island, indicates the presence of similar constituents as the upstream and site samples, but of lesser concentrations. Sediment samples adjacent to and downstream of the facility contain constituents (Tables 9 - 12) of the same type as found on the facility property (Tables 9 - 12), which constitutes attribution. Contributing factors of contaminant release to sediment include clayey soil of the property; slope of the property, directing facility run-off to the south of the property then east and west via drainage ditch to the river; and the short distance to the Des Plaines River from the facility sources, approximately twenty to fifty feet.

4.3 SOIL EXPOSURE PATHWAY

Soil sample analytical results indicate an observed release to the soil exposure pathway by contaminants that are attributable to the sites' former activities and are within the top two feet of soil or cover material. Compounds found three times background concentrations or in some instances, ten times background if the constituent is an estimated value (J) from this sampling effort are considered valid as a confirmed release to the soil exposure pathway (reference Tables 9 - 12). Contributing factors to this contamination have been discussed previously.

Since the facility ceased operating in 1997 there has been very limited activity on site.

The owner makes a weekly visit to the facility but is not thought to be conducting business. The owner has stated, during previous conversations, that he has been the only employee of this company. Due to the lack of daily activity, site surface disturbance is minimal. Due to the facility being accessible to the public, excluding the interior of the structure, contact potential of contaminated waste, soil, and/or breathing of contaminated air, on site is high.

Analysis of samples collected during the May 22 & 23, 2001 IA indicate contaminants

exist on Cliffs Container property from surface grade to a depth, below current grade, of up to six feet. Based on information supplied by the owner regarding ignitable and possibly chlorinated solvent residual content of some of the drums obtained and cleaned, contaminants identified on the property can be attributed to these drums. The facility has been inundated by flood waters on numerous occasions. The island on which Cliffs Container is located is within the Des Plaines River 100 year flood plain. The National Flood Insurance Program Flood Rate Maps indicate the facility to be in an A-2 category (100 year flood plain). Within a 4-mile radius of the site the population is calculated to be approximately 27,960 persons. The nearest individual is located in a residential dwelling approximately 2640 feet west of the Cliffs Container property. Three persons reside in this dwelling.

There are no schools or day care facilities on-site or within 200 feet of contaminated areas.

Nearby population within one mile of Clark has been calculated to be 4,646 and is presented below.

Workers and Near-by population within one mile of the site

Distance	<u>Population</u>
On-site	1
0 - 1/4 mile	4
1/4 - 2 mile	62
2 - 1 mile	1440

The population was calculated using USGS topographic maps for the area surrounding the facility and 3.08 people per household in Will County, as established by the U.S. Census Bureau (1990)

4.4 AIR ROUTE

During the May 22 & 23, 2001 Integrated Assessment there were no formal air samples collected. A Foxboro TVA was utilized to screen ambient air around the site, air in the breathing zone at each sample point, and the sample as it was taken. This unit was also used during operation of the Geoprobe to screen the breathing zone and sample cores as the core sleeves were opened prior to sampling. No reports of air releases by Cliffs Container have been recorded with the Agency.

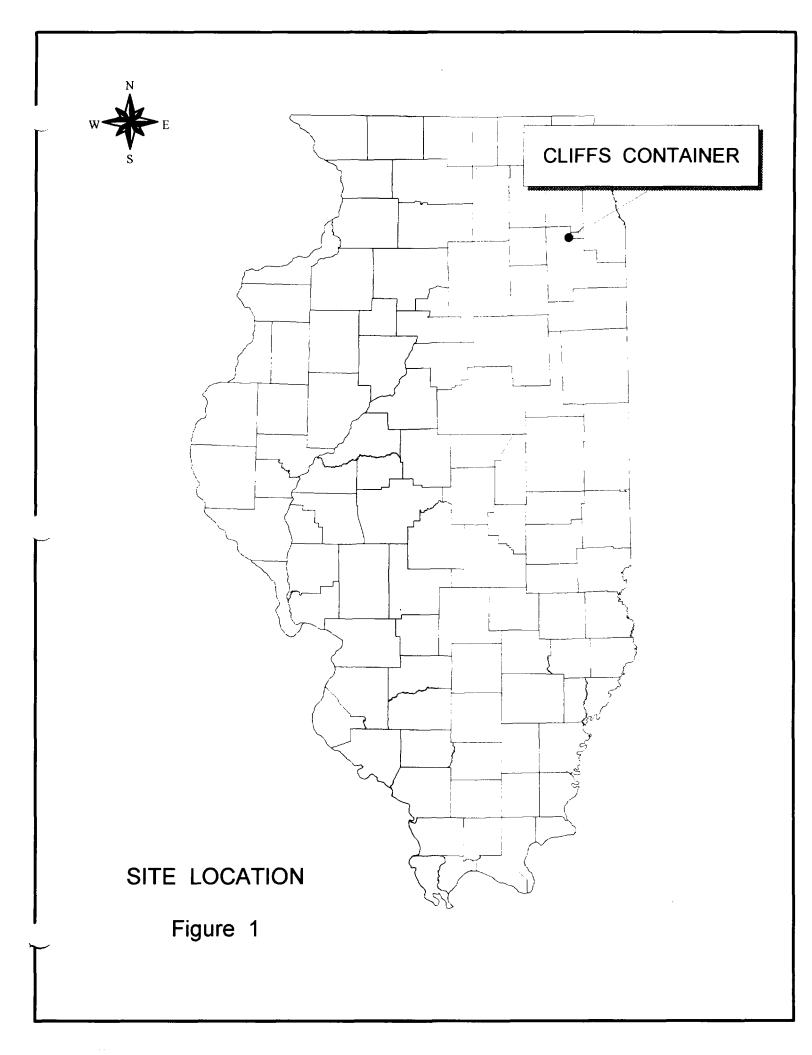
Within a 4-mile radius of the site the population is calculated to be approximately 27,960 persons. The nearest individual and regularly occupied building (the museum building on Isle A La Cache Forest Preserve property) is located approximately 500 feet west of the Cliffs Container property. The approximate number of individuals potentially exposed to air-borne particulates is listed below. The potential for wind blown particulates to carry contaminants off-site is possible since these contaminants have been found in the top six inches of soil on-site. Sensitive environments within four miles of Cliffs Container property consist of wetlands, which have been described previously in this report.

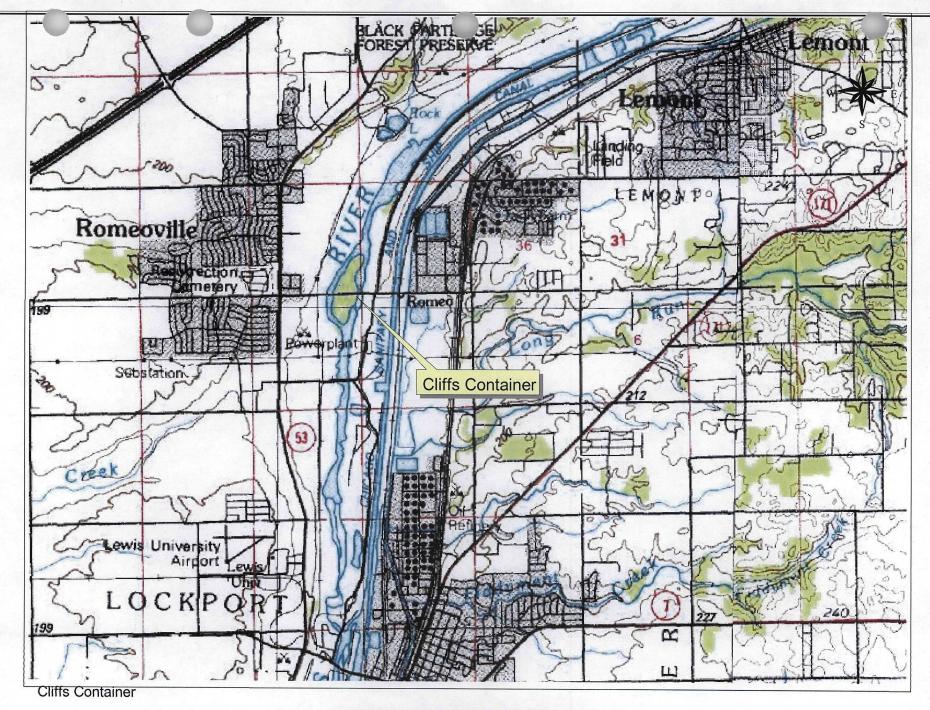
Individuals potentially exposed to air-borne contaminants

<u>Distance</u>	Population
On-site	1
0 - 1/4 mile	4
1/4 - 1/2 mile	62
1/2 - 1 mile	1440
1 - 2 miles	7840
2 - 3 miles	10,760
3 - 4 miles	18,280

The population was calculated using USGS topographic maps for the area surrounding the facility and 3.08 people per household in Will County, as established by the U.S. Census Bureau (1990)

5.0 FIGURES AND TABLES





AREA TOPOGRAPHIC MAP

FIGURE 2



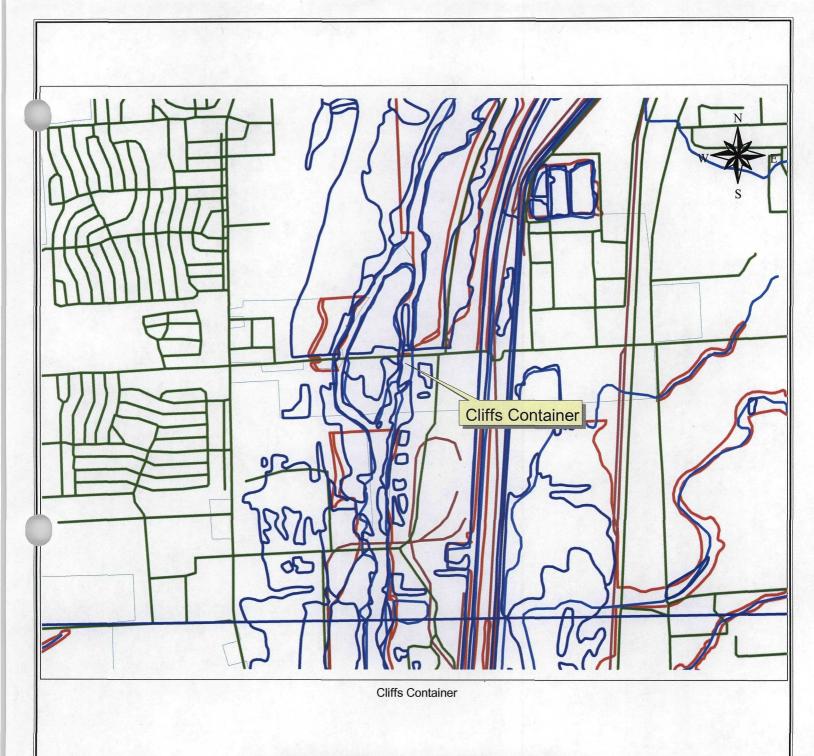
Cliffs Container

SITE AREA MAP

FIGURE 3



Sample Location Map
Figure 4



WETLAND LOCATION MAP

FIGURE 5



Analytical Results (Qualified Data)								-	<u></u>						Page 1
Case #: 29298 Site : Lab : Reviewer : Date :	SDG : E0010 CLIFFS CON AATSLA		ER										,		
Sample Number: Sampling Location: Matrix: Units: Date Sampled: Time Sampled: %Moisture: DH:	E0011 S101 Soil ug/Kg 05/22/2001 11:15 54		E0010 \$102 \$001 ug/Kg 05/22/2001 11:10 68		E0014 S103 Soil ug/Kg 05/22/2001 11:55 54		E0016 \$104 \$oil ug/Kg 05/22/2001 12:45 18		E0017 S105 Soil ug/Kg 05/22/2001 13.15 48		E0018 S106 Soil ug/Kg 05/22/2001 13:15 22	E0020 X101 Soil ug/Kg 05/22/2001 14:30 22	E0021 X102 Soil ug/Kg 05/22/2001 14/50 6	E0022 X103 Soil ug/Kg 05/22/2001 15.10 4	E0023 X104 Soil ug/Kg 05/22/2001 15:30 5
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0	1.0	1 0	10	1.0
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result Fla	ıg	Result Flag	Result Flag	Result Flag	Result Fla	ig Result Flag
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichlorosthene 1,1-Dichlorosthene 1,1-Z-Trichloro-1,2,2-trifluoroethane Carbon Disulfide Methyl Acetate Methylene Chloride trans-1,2-Dichlorosthene Methyl tert-Butyl Ether 1,1-Dichlorosthane cis-1,2-Dichlorosthane cis-1,2-Dichlorosthane Chloroform 1,1,1-Trichlorosthane Cyclohexane Carbon Tetrachloride Benzene 1,2-Dichlorosthane Trichlorosthane Trichlorosthane 1,2-Dichlorosthane Trichlorosthane 1,2-Dichloropropane Bromodichloromethane 1,3-Dichloropropene 4-Methyl-Z-pentanone Toluene trans-1,3-Dichloropropene 1,1,2-Trichlorosthane Tetrachlorosthene 2-Hexanone Dibromochloromethane 1,2-Dichlorobenzene Ethylbenzene Xylenes (total) Styrene Bromoform Isopropylbenzene 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene	20 20 20 20 20 20 20 20 20 20 20 20 20 2	,3333333333 ₃ 33 ₋₂ 3333 ₃ 33-3333 ₅ -3333 ₇₋₂ 33333333333333333333333	30 30 30 30 30 30 30 240 30 45 30 30 47 30 30 30 30 30 30 30 30 30 30	333333333333333333333333333333333333333	22 22 22 22 22 22 22 24 22 22 22 22 22 2	333333377373333733333337333733333333333	12 12 12 12 12 12 12 12 12 12 12 12 12 1	333333335533333333333333333333333333333	20 U		13 U U U U U U U U U U U U U U U U U U U	11 W		11 U	

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Romeoville, Illinois

						<u>-</u>				
Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : E0010 CLIFFS CONTAIN AATSLA	ER								Page 2
Sample Number : Sampling Location : Matrix : Units : Date Sampled : %Moisture : pH :	E0026 X105 Soil ug/Kg 05/22/2001 15:40 22	E0027 X106 Soil ug/Kg 05/22/2001 16:00 30	E0028 X107 Soil ug/Kg 05/22/2001 16:20 21	E0029 X108 Soil ug/Kg 05/22/2001 16:20 16	E0030 X109 Soil ug/Kg 05/23/2001 08:20 24	E0031 X110 Soil ug/Kg 05/23/2001 08:35 23	E0032 X111 Soil ug/Kg 05/23/2001 08:50 18	E0033 X112 Soil ug/Kg 05/23/2001 09:00 19	E0034 X113 Soil ug/Kg 05/23/2001 09:40 28	E0035 X114 Soil ug/Kg 05/23/2001 10:30 26
Dilution Factor :	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Volatile Compound	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag
Dichlorodifluoromethane Chloromethane Chloromethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene 1,1,2-Trichloro-1,2,2-trifluoroethane Acetone Carbon Disulfide Methyl Acetate Methylene Chloride trans-1,2-Dichloroethene Methyl tert-Butyl Ether 1,1-Dichloroethane cis-1,2-Dichloroethane cis-1,2-Dichloroethane Cyclohexane Chloroform 1,1,1-Trichloroethane Cyclohexane Carbon Tetrachloride Benzene 1,2-Dichloroethane Trichloroethene Methylcyclohexane 1,2-Dichloropropane Bromodichloromethane cis-1,3-Dichloropropene 4-Methyl-2-pentanione Tolluene trans-1,3-Dichloropropene 1,1-2-Trichloroethane Tetrachloroethane Tetrachloroethane Tetrachloroethane Tetrachloroethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichloropenzene Ethylbenzene Xylenes (total) Styrene Bromoform Isopropylbenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane	12 W	12 W U U U U U U U U U U U U U U U U U U	12 U	11 U U U 11 U	11 UU	12 UJ	11 U	18 U	14 UJ	13 UU

Analytical Results (Qualified Data)						2200-20				Page 1
Case #. 29298 Site :	SDG E0010 CLIFFS CONTAIN	ED								
Lab .	AATSLA	ien.								
Reviewer										
Date										
0 1 1 1	F0014	50010	E0014	E0016	50017	50015	F0000	F0004	E0022DL	E0023
Sample Number . Sampling Location :	E0011 S101	E0010 S102	S103	S104	E0017 S105	E0018 S106	E0020 X101	E0021 X102	X103	X104
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Date Sampled : Time Sampled	05/22/2001 11:15	05/22/2001	05/22/2001	05/22/2001 12:45	05/22/2001 13:15	05/22/2001	05/22/2001 14:30	05/22/2001 14:50	05/22/2001 15:10	05/22/2001 15:30
%Morsture :	54	68	54	18	48	22	22	6	4	5
pH:	7.8 1.0	7.8 1 0	7.7 1.0	8.1 1.0	7.5	7.5	7.5	81	8 4 10.0	8 4 1.0
Dilution Factor :		1			1.0	1.0	1.0	1.0		
Semivolatile Compound	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag
Benzaldehyde	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Phenol	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
bis-(2-Chloroethyl) ether 2-Chlorophenol	720 U	1000 U	720 U	400 U	630 U	420 U 420 U	420 U 420 U	350 U 350 U	3400 U 3400 U	350 U 350 U
2-Methylphenol	720 U	1000 · U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
2,2'-oxybis(1-Chloropropane)	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Acetophenone	720 U	1000 U	720 U	400 U	630 U	· 420 U	420 U	350 LU	3400 U	350 U
4-Methylphenol N-Nitroso-di-n-propylamine	720 U 720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U 350 U	3400 U	350 U 350 U
Hexachloroethane	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Nitrobenzene	720 U	1000 U	720 U	400 U	. 630 U.	420 U	420 U	350 U	3400 U	350 U
Isophorone 2-Nitrophenol	720 U	1000 U	720 U	400 U	630 U	420 U 420 U	420 U 420 U	350 U 350 U	3400 U 3400 U	350 U 350 U
2,4-Dimethylphenol	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
bis(2-Chlorosthoxy)methane	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
2,4-Dichlorophenol Naphthalene	720 U 720 U	1000 U	720 U	400 U	630 U	420 U	420 U 210 J	350 U 350 U	3400 U	350 U 350 U
4-Chloroaniline	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Hexachlorobutadiene	720 U	1000 U	720 U	400 U	. 630 U	420 U	420 U	350 U.	3400 U	350 U
Caprolactam 4-Chloro-3-methylphenol	720 U 720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U 350 U
2-Methylnaphthalene	720 U	1000 U	720 U	400 U	630 U	420 U	480	350 U	3400 U	350 U
Hexachlorocyclopentadiene	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
2,4,6-Trichlorophenol	720 U 1 800 U	1000 U 2600 U	720 U	400 U 1000 U	630 U	420 U	420 U	350 U 880 U	3400 U	350 U 870 U
1,1'-Biphenyl	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
2-Chloronaphthalene	720 U	1000 U	720 U	400 U	630 U	- 420 U	420 U	350 U	3400 U	350 U
2-Nitroaniline Dimethylphthalate	1800 U	2600 U	1800 U	1000 U	1600 U 630 U	1100 U 420 U	1100 U 420 U	880 U 350 U	8600 U	870 U 350 U
2,6-Dinitrotoluene	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Acenaphthylene	720 U	1000 U	720 U	_400 U	630 U	420 U,	420 U	350 U	. 580 J	350 U
3-Nitroaniline Acenaphthene	1800 U 720U	2600 U	1800 U	1000 U	1600 U	1100 U 420 U	1100 U 420 U	880 U 350 U	8600 U 620 J	870 U 350 U
2,4-Dinitrophenol	1800 U	2600 U	1800 U	1000 U	1600 U	1100 U	1100 U	880 U	8600 U	870 U
4-Nitrophenol	1600 U	2600 U	1800 U	1000 U	1600 U	1100 U	1100 U	- 880 U	- 8600 U	870 U
Dibenzofuran 2,4-Dinitrotokuene	720 U	1000 U	720 U	400 U	630 U	420 U	60 J 420 U	350 U	3400 U 3400 U	350 U_ 350 U
Diethylphthalate	720 U	1000 U	720 U	400 U	630 U	420 U	45 J	350 U	3400 U	350 U
Fluorene 4-Chlorophenyl-phenyl ether	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	400 J	350 U 350 U
4-Chorophanyi-phenyi etner	1800	2600 U	1800 U	1000 U	630 U	420 U	420 U	350 U 880 U	3400 U	350 U 870 U
4,6-Dinitro-2-methylphenol	1800 U	2600 U	1800 U	1000 U	1600 U	1100 U	1100 ປ	880 U	8600 U	870 U
N-Nitrosodiphenylamine 4-Bromophenyl-phenylether	720 U 720 U	1000 U	720 U . 720 U	400 U	630 U	420 U 420 U	420 U	350 U	3400 U	350 U
Hexachlorobenzena	720 U	1000 U	720 U	400 U	630 U - 630 U	420 U	420 U 420 U	350 U 350 U	3400 U	350 U
Atrazine	720 U	1000 U	720 U	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Pentachlorophenol Phenanthrene	1800 J	2600 U 400 J	1800 U	1000 U 400 U	1600 U	1100 U	1100 U	860 U.	8600 U	870 U
Anthracene	720 U	340 J	100 J	400	580 J	460 85 J	280 J 420 U	74 J 350 U	3700 J	67 J 350 U
Carbazole	720 U	1000 U	83 J	400 U	79 J	56 J	420 U	350 U	3400 U	350 U
Di-n-butylphthalate Fluoranthene	- 720 U 670 J	330 J	720 U 1800	400 U 79 J		99 J	110 J	. 59 J	3400 U	350 U
Pyrene	540 J	2200	1400	66	1500	1200 850	94 J 84 J	140 J 120 J	13000 9900	120 J
Butylbenzylphthalate	720 U	1000 U	720 U	400 U	630 U	420 U	93 J	350 U	3400 U	350 U
3.3'-Dichlorobenzidine Benzo(a)anthracene	720 U	1000 U	720 -U 620 J	400 U	630 U	420 U	420 U	350 U	3400 U	350 U
Chrysene	220 J 430 J	1100	620 J	400 U 43 J	570 J	410 J 780	420 U 66 J	64 J 88 J	7000 8400	57 J 74 J
bis(2-Ethylhexyl)phthalate	270 J	890 J	1100	400 Ü	630	510	140 J	60 J	3400 U	110 J
Di-n-octylphthalate Benzo(b)fluoranthene	720 U	1000 U	720 U	400 U	75 J	420 U	″ 420 U	350 U	3400 Ù.	. 350 U
Benzo(k)fluoranthene	580 J 450 J	2100 1400	1500 1200	48 J 41 J	1500 890	1100 630	420 U	84 J 71 J	14000 7800	91 J 70 J
Benzo(a)pyrene	330 J	1100	940	400 U	930	650	420 U	77 J	12000	65 J
Indeno(1,2,3-cd)pyrens	140 J	310 J	320 J	400 U	450 J	240 J	420 U	350 U_	3800	350 U
Dibenzo(a,h)anthracene Benzo(g,h,i)perylene	720 U 120 J	1000 U 270 J	100 J 290 J	400 U 400 U	630 U 410 J	81 J 210 J	420 U	350 U	3300 J	350 U 350 U
				1,55	1	[2,0]	720	330.	3.00	330 0

Analytical Results (Qualified Data)										Page 2
Case #: 29298 Site . .ab ' Reviewer ' Date	SDG : E0010 CLIFFS CONTAIN AATSLA	ER								
Sample Number . Sampling Location . Matrix . Units . Date Sampled Time Sampled : %Moisture . pH . Dilution Factor : Semivolatile Compound	E0026 X105 Soil ug/Kg 05/22/2001 15:40 22 7.3 1.0	E0027DL X106 Soil ug/Kg 05/22/2001 16:00 30 7.5 2.0	E0028 X107 Soil ug/Kg 05/22/2001 16:20 21 7.6 1.0	E0029 X108 Soil ug/Kg 05/22/2001 16:20 16 7 2 1.0	E0030 X109 Soil ug/Kg 05/23/2001 08:20 25 7.9 1.0	E0031 X110 Soil ug/Kg 05/23/2001 08:35 23 8.6 1.0	E0032 X111 Soil ug/Kg 05/23/2001 06:50 18 8.7 1.0	E0033 X112 Soil ug/Kg 05/23/2001 09:00 19 8 7 1.0	E0034 X113 Soil ug/Kg 05/23/2001 09:40 28 7.9 1.0	E0035 X114 Soil ug/Kg 05/23/2001 10:30 26 8.3 1.0
Benzaldohyde Phenol bis-(2-Chloroethyt) ether 2-Chlorophenol 2-Methylphenol 2-Methylphenol 2-Methylphenol 2-Z-oxybis(1-Chloropropane) Acetophenone 4-Methylphenol 4-Methylphenol 4-Methylphenol 8-Methylphenol 1-Methylphenol 1-Methylp	420 U	940 U	420 U	390 U	440 U	430 U	400 U	410 U	460 U	450 U

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site :	SDG : E0010 CLIFFS CONT	AINE	ER .										·						Page 1	
Lab. :	AATSLA																			
Reviewer :																				
Date:																				
Date.	Ì																			
	<u> </u>				1		ſ													
Sample Number :	E0011	- 1	E0010		E0014		E0016		E0017		E0018		E0020		E0021		E0022		E0023	
Sampling Location :	S101]	S102		S103		S104		S105		S106		X101		X102		X103		X104	
Matrix:	Soil	- 1	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Units:	ug/Kg	- 1	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
		1							,											
Date Sampled :	05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001	
Time Sampled :	11:15	- 1	11:10		11:55		12:45		13:15		13:15		14:30		14:50		15:10		15:30	
%Moisture :	54		68		54		18		48		22		22		5		4		5	
pH:	7.8	1	7.4		7.7		8.1		7.4		7.5		7.5		8.1		8.4		8.4	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result I	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
									<u> </u>			Ī				T		_		
alpha-BHC	0.63	J	5.3		3.7	U.	0.47		3.3		2.2		2.2	U.	0.084		1.8		0.47	J
beta-BHC	1.6	J	30	J	3.7	U	2.3	1	0.64	J	2.2	Ìυ	28	J	0.73	J	1.8	lυ	1.8	ĺυ
delta-BHC		J -	9,9		3,7	U	1.0	IJ	3.3		2.2	l U	2.2		0.33	J	0.18	IJ.	1:8	ľu
gamma-BHC (Lindane)		ùΙ	5.3		3.7	lυ	2.1	Ū	3.3		2.2		17		1.8		1.8		1.8	
Heptachlor		ŭ .	6.5		3.9		1.2		3.3		2.2		32				0.96		0.93	
Aldrin	1.4	7	25		0.69	J	1.3		3.3	,	2.2		28		2.1	10	1.8		0.63	, -
Heptachlor epoxide		ŭ			3.7	Ű		Ü	1 .							1,	1 .	1		
		9	5.3	1			2.1	1 -	3:3				2.2		1.8		1.6		î = 0 + : 1.8	
Endosulfan I	0.81	J	1.1		1.5	J	2.1		0.82	J	0.80		0.67		1.8		1.3		0.22	
DiGidilli	3.7	J	0.5		3.7	J	0.76		2.1	J=:	1.9	J	0.89		0.87		3.4		1.2	
4,4'-DDE	13		46		19		4.2		11		11		1.6		25		9.0		3.2	
Endrin		U	1.7		7.2	U	4.0	υ	6.4		4,2	U	0.55	J	2.5	≟بارتا	3.4	U	7.0	J
Endosulfan II		Ų]	10		7.2	U	4.0) U	6.4	U	4.2	U	1.2	J	3.5	Įυ	0.26	J	3.5	Įυ
4,4'-DDD	40		130	J	68	1 1	15		23		22	1,	2.9	J	83		3.6	J	4.9	10
Endosulfan sulfate	2.7	JΙ	5.9	J	2.8	J	1.5	IJ	3.3	IJ	1.5	IJ"	4.2		0.82		18		2.9	
4,4-DDT	16		13		6.7	J	4.0	1	13	1.7	7.0		5.0		66		15		6.2	
Methoxychlor	37	υ	53		37	ιŭ	21	Ιŭ	33	U	22		10		18		7.1		18	
Endrin ketone		ŭΙ	10		7.2	υ	4.0			lŭ 🕏	1.2 1.3 min 4.2		4.2		S 3.5		13			
Endrin aldehyde		υ	10		7.2	u			1						1					-
l a ac						١٠.	4.0		6.4	U	4.2		4.2		3.5 0.86		8.8		3.5	Įυ
alpha-Chlordane	2.7	J.	⁷ : 13		11		0.95		3.0	اس لد	2.6		2.2		, 0,00	7	12		2.7	
gamma-Chlordane	3.1	J.	13		8.4		1.2		2.5	J	2.3		1.1		1.0		1.8		0.62	
Toxaphene		U -	530		370	U. b	210		330	U		U	220	U.	180	U	180		180	Ü.
Aroclor-1016		υ {	100	υ	72	υ	40	lυ	63	υ	42	U	42		35		34	ĺυ	35	
Aroclor-1221	150	U	210	lυ	150	υ·	82	.U	130	Ü	86		86		71		70		2 state 71	ŪŪ.
Aroclor-1232		űΙ	100		72	Ū	40	Ū	63	Ιŭ	42	ent or	42		35		34		35	
Aroclor-1242		ŭΠ	100		72	ŭ.	40		63	Ü	42									1 -
Aroclor-1248		ŭ	100		72	U							42		- 35		34		35	
		- 1					40	1 -	63	U	42		42		35		34		35	
Aroclor-1254		Ű	100		.72	U		υ	63		42		42		35		34		35	
Aroclor-1260	72	υĮ	100	U	72	U	40	U	63	U	42	U	42	U	35	U	34	U	35	U

Romeoville, Illinois

TABLE 3

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : E0010 CLIFFS CON AATSLA		ΞR														·	P	age 2	
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0026 X105 Soil ug/Kg 05/22/2001 15:40 22 7.3 1.0	I.e.	E0027 X106 Soil ug/Kg 05/22/2001 16:00 30 7.5 1.0	Ter	E0028 X107 Soil ug/Kg 05/22/2001 16:20 21 7.6 1.0		E0029 X108 Soil ug/Kg 05/22/2001 16:20 16 7.2 1.0		E0030 X109 Soil ug/Kg 05/23/2001 08:20 24 7.9 1.0	E0031 X110 Soil ug/Kg 05/23/2001 08:35 22 8.8 1.0		E0032 X111 Soil ug/Kg 05/23/2001 08:50 18 8.7 1.0		E0033 X112 Soil ug/Kg 05/23/2001 09:00 19 8.7 1.0		E0034 X113 Soil ug/Kg 05/23/2001 09:40 28 7.9 1.0		X1 S ug 05/23 10 2 8 1	:30 :6 .2 .0	
Pesticide/PCB Compound	Result 2.2	Flag	Result 0.46	Flag	Result FI	lag	Result Flag	g	Result Flag	Result 43	Flag	Result 1.7	Flag	Result 5.4	Flag	Result 2:4	Flag U	He	1	Flac
beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor Aldrin Heptachlor, epoxide Endosulfan I Dieldrin 4,4'-DDE Endrin Endosulfan II 4,4'-DDD Endosulfan sulfate 4,4'-DDT Methoxychlor Endrin ketone Endrin aldehyde alpha-Chlordane gamma-Chlordane Toxaphene Aroclor-1016 Aroclor-1232	2.2 2.2 2.2 0.51 2.2 2.2 1.8 20 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2	רנהתניי הת יהמיחח	2.4 2.4 2.4 0.34 2.4 1.2 2.7 4.7 2.5 0.78 2.3 24 4.7 4.7 0.94 0.72 240 47	חחיםחייחחייחחייחח	2.2 U 4.2 U		2.0 U 2.7 J 7.9 J 4 J 7.5 J 9.6 J 20 U 3.9 U 3.9 U 1.9 J 1.3 J 200 U 39 U		0.67 J 2.2 U 2.2 U 0.31 J 2.2 U 0.33 J 2.2 U 1.2 J 11 0.43 J 1.0 J 6.1 U 0.77 J 9.8 22 U 1.5 J 2.2 U 0.38 J 2.2 U 0.38 J 2.2 U 0.38 J 2.2 U 0.43 U 88 U 43 U 43 U	2.2 2.2 2.2 2.2 2.2 2.2 4.2 4.2 4.2 4.2	טיייייייייייייייייייייייייייייייייייייי	2.1 2.1 2.1 2.1 0.51 2.1 4.0 4.1 4.0 4.0 6.4 4.0 1.5 21 2.0 1.1 0.65 210 40		2.1 2.1 2.1 2.1 0.53 2.1 12 12 1.4 4.1 8.0 4.9 4.1 1.8 7.4 210 4.1 8.3 4.1		2.4 2.4 2.4 2.4 0.82 2.4 1.2 11 0.72 4.6 4.9 0.60 19 24 1.1 1.6 0.61 1.1 240 46 93 46			2.3 2.3 2.3 0.21 0.42 2.3 3.6 5.9 4.5 0.94 5.2 0.93 3.1 23 1.3 1.1 2.3 0.56 230 45	

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Romeoville, Illinois

TABLE 4

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : ME001 CLIFFS CON SENTIN		ER					_									_		Page 1	
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Solids : Dilution Factor :	ME0011 S101 S0il mg/Kg 05/22/2001 11:15 51.0 1.0		ME0010 \$102 \$0il mg/Kg 05/22/2001 11:10 43.0 1.0		ME0014 S103 Soil mg/Kg 05/22/2001 11:55 30.5 1.0		ME0016 S104 Soil mg/Kg 05/22/2001 12:45 78.7 1.0		ME0017 S105 Soil mg/Kg 05/22/2001 13:15 57.1 1.0		ME0018 S106 Soil mg/Kg 05/22/2001 13:15 54.1 1.0		ME0020 X101 Soil mg/Kg 05/22/2001 14:30 78.0 1.0		ME0021 X102 Soil mg/Kg 05/22/2001 14:50 93.3 1.0	;	ME0022 X103 Soil mg/Kg 05/22/2001 15:10 93.3 1.0		ME0023 X104 Soil mg/Kg 05/22/2001 15:30 92.0 1.0	
ANALYTE	Result	Flag	Result	Fiag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CALCIUM CHEOMIUM COBALT COPPER IRON LEAD MAGNESIUM MANGANESE MERCURY NICKEL POTASSIUM SELENIUM SELENIUM SILVER SODIUM THALLIUM VANADIUM ZINC CYANIDE	9430 1.2 6.8 119 0.58 2.0 58400 36.3 93 35.2 19100 60.0 288 0.14 26.8 1910 1.3 1.5 594 1.5 18.5 171 0.11	J J U	10500 1.6 10.1 119 0.68 3.2 58500 53.8 10.6 73.6 24300 111 20800 382 0.23 37.1 2090 1.6 2.2 600 1.8 23.7	J	18400 2.2 8.8 267 1.1 5.5 64400 142 16.3 87.5 31900 221 38400 380 0.28 67.5 3690 2.2 4.3 1010 2.6 35.0 414 0.18	J J J Sector	4170 0.86 3.4 39.5 0.31 0.66 107000 12.2 2.9 12.1 9900 31.7 67000 247 0.060 9.1 1060 0.86 0.20 440 0.99 10.3 54.4	J J J J J J J J J J J J J J J J J J J	4940 1.2 2.5 99.0 0.29 0.68 52100 19.4 4.2 27.7 10100 44.6 25600 277 0.080 11.7 1090 1.2 0.80 523 1.3 10.4 112 0.10	J J U U	6070 1.1 4.9 106 0.38 1.1 53500 26.1 5.4 36.2 12700 64.0 30100 353 0.080 15.4 1400 1.3 1.1 550 1.4 12.6 152 0.10	UJ J J U U U U U U U U U U U U U U U U	11400 0.77 8.5 264 0.78 0.31 80100 16.5 9.8 20.3 24900 33.8 45900 2260 0.080 21.8 2520 0.87 0.47 364 1.0 25.3 88.7	J J J	198 -86500 777 0.050 4.6 839 0.71 - 0.86 379	J	2980 0.64 1.6 29.1 0.27 0.070 143000 3.7 1.9 3.6 5820 9.7 82100 465 0.050 4.6 920 0.72 0.17 313 0.83 6.5 12.2 0.96	J	2350 0.65 2.8 97.0 0.21 137000 8.6 3.3 14.1 15600 41.1 88000 354 0.050 7.9 673 0.74 0.17 533 0.85 7.7 218 1.3	J J J J J J J J J J J J J J J J J J J

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Romeoville, Minois

TABLE 4

Analytical Results (Qualified Data)																			Page 2	
Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : ME001 CLIFFS CON SENTIN		ER																	
Sample Number: Sampling Location: Matrix: Units: Date Sampled: Time Sampled: %Solids: Dilution Factor:	ME0026 X105 Soil mg/Kg 05/22/2001 15:40 67.2 1.0		ME0027 X106 Soil mg/Kg 05/22/2001 16:00 76.2 1.0		ME0028 X107 Soil mg/Kg 05/22/2001 16:20 78.4 1.0		ME0029 X108 Soil mg/Kg 05/22/2001 16:20 71.8 1.0		ME0030 X109 Soil mg/Kg 05/23/2001 08:20 70.4 1.0		ME0031 X110 Soil mg/Kg 05/23/2001 08:35 86.3 1.0		ME0032 X111 Soil mg/Kg 05/23/2001 08:50 82.6 1.0		ME0033 X112 Soil mg/Kg 05/23/2001 09:00 74.3 1.0		ME0034 X113 Soil mg/Kg 05/23/2001 09:40 80.1 1.0		ME0035 X114 Soil mg/Kg 05/23/2001 10:30 67.4 1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
ALUMINUM ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER IRON LEAD MAGNESIUM MANGANESE MERCURY NICKEL POTASSIUM SELENIUM SILVER SODIUM THALLIUM VANADIUM	14700 0.88 9,7 530 1.0 0.53 27000 27.1 19.2 31.8 41400 59.5 16300 5490 0.11 37.9 2860 1.2 1.4 402	J	14100 1.4 13.2 450 0.80 0.39 31100 20.0 19.0 18.2 38200 32.2 17900 5240 0.080 35.7 1810 0.89 1.4 418 1.0	J	15300 1.2 9.4 120 0.88 0.28 17200 25.2 11.2 28.2 29900 41.1 11000 1160 0.080 27.6 2270 0.85 0.89 321 0.98	J	16900 0.83 12.0 378 1.1 0.080 13800 25.8 19.4 20.6 45500 26.6 9650 3290 0:10 31.1 2230 0.94 1.4 414 1.1	U	13700 1.2 11.8 148 0.91 1.5 19000 31.2 13.0 43.2 27000 122 10700 1160 0.14 29.1 2150 0.95 0.87 230 1.1	J	4150 1.7 3.4 216 0.39 0.32 138000 6.7 2.9 50.9 8780 82.3 86200 408 0.060 7.5 814 0.78 0.18 1040 0.89 9.2	J	7830 0.80 8.6 64.1 0.50 0.12 85400 15.7 7.0 31.1 19700 59.0 49000 549 0.090 19.3 1950 0.82 0.26 524 0.94	J U	5330 1.7 6.8 144 0.80 1.5 104000 15.6 4.2 48.1 13400 216 60900 344 0.080 15.7 -1350 0.91 0.65 719	J	10600 0.75 9.3 152 0.56 0.42 63600 19.3 8.5 26.9 20700 53.1 38500 795 0.080 19.4 2280 0.85 0.40		15200 1.7 11.3 151 1.0 2.1 21400 38.1 11.6 119 27600 728 0.31 30.6 2850 1.5 290 1.1 30.2	

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Romeoville, Illinois

					TABLE 5									
Analytical Results (Qualified Data) Case #: 29298 Site : Lab. :- Reviewer : Date :	SDG : E0013 CLIFFS CONT. AATSLA	AINI	ĒR											
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0013 G101 Water ug/L 05/22/2001 11:55 N/A 7.0 1.0		E0019 G102 Water ug/L 05/22/2001 13:30 N/A 7.0 25.0		E0024 FB Water ug/L 05/22/2001 15:40 N/A 7.0 1.0		E0007 G201 Water ug/L 05/22/2001 08:50 0.0 6.8 1.0	Floor	E0008 G202 Water ug/L 05/22/2001 08:50 0.0 6.8 1.0		E0009 G203 Water ug/L 05/22/2001 09:20 0.0 7.4 1.0	Elec	E0004 FB Water ug/L 05/22/2001 09:00 0.0 7.0 1.0	Elec
Volatile Compound	Result F	-lag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene 1,1,2-Trichloro-1,2,2-trifluoroethane Acetone Carbon Disulfide Methyl Acetate Methylene Chloride trans-1,2-Dichloroethene Methyl tert-Butyl Ether 1,1-Dichloroethane cis-1,2-Dichloroethene 2-Butanone Chloroform 1,1,1-Trichloroethane Cyclohexane Carbon Tetrachloride Benzene 1,2-Dichloroethane Trichloroethene Methylcyclohexane 1,2-Dichloropropane Bromodichloromethane cis-1,3-Dichloropropene 4-Methyl-2-pentanone Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Ethylbenzene Ethylbenzene Ethylbenzene Tylenes (total) Styrene Bromoform Isopropylbenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene	10 10 10 10 10 10 10 10		250 250 250 250 250 250 250 250 250 250		10 10 10 10 10 10 10 10 10 10 10 10 10 1	000000000000000000000000000000000000000	N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 N/A 5 1 1 N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000000000000000000000000000000000000000	N/A 1 1 1 1 1 1 1 1 1 1 1 N/A 1 1 N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 N/A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

E0004 FB Water

ug/L 05/22/2001

Romeoville, Illinois

TABLE 6 Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date : SDG : E0013 CLIFFS CONTAINER AATSLA E0007 G201 Water E0008 G202 Water E0009 G203 E0019 G102 Water E0024 FB Water Sample Number : Sampling Location : Matrix : E0013 G101 Water Water ug/L 05/22/2001 ug/L 05/22/2001 ug/L 05/22/2001 ug/L 05/22/2001 ug/L 05/22/2001 ug/L 05/22/2001 Units: Date Sampled : Time Sampled : %Moisture : 13:30 N/A 08:50 0.0 6.8 08:50 0.0 6.8 09:20 0.0 7.4 11:55 15:40 N/A N/A

Date Sampled :	05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001	
Time Sampled : %Moisture :	11:55		13:30		15:40 N/A		08:50 0.0		08:50 0.0		09:20 0.0		09:00	
pH:	N/A 7.0		N/A 7.0		7.0		6.8		6.8		7.4		7.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10	U	10	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
Phenol	10	U	10	U	10	U	5	U	5 IN/A	U	5	U	5	
bis-(2-Chloroethyl) ether	10	Ü	10	U	10	U	5		5	U	5	U	5	
2-Chlorophenol	10	U	10	U	10	U	5		5	U	5	U	5	
2-Methylphenol	10	U	10	U	10	U	5	U	5	U	5	U	5	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Acetophenone	10	U	10	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
4-Methylphenol	10	U	10	U	10	U	5		5	U	5	U	5	
N-Nitroso-di-n-propylamine	10	U	10	U	10	U	5		5	U	5	U	5	
Hexachloroethane Nitrobenzene	10 10	U	10 10	U	10 10	U	5 5		5 5	U	5 5	U	5	
Isophorone	10	U	10	U	10	U	5		5	U	5	U	5 5	
2-Nitrophenol	10	Ü	10	U	10	U	5		5	U	5	U	5	
2,4-Dimethylphenol	10	U	10	U	10	U	5		5	U	5	U	5	
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	5		5	U	5	U	5	U
2,4-Dichlorophenol	10	U	10	U	10	U	5		5	U	5	U	5	
Naphthalene	10	U	10	U	10	U	5		5	U	5	U	5	
4-Chloroaniline	10	R	10	R	10	R	5		5	U	5	U	5	
Hexachlorobutadiene Caprolactam	10 10	U	10	U	10	U	5 N/A	U	5 N/A	U	5 N/A	U	5	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	N/A 5	U	1N/A 5	U	N/A 5	U	N/A 5	U
2-Methylnaphthalene	10	U	10	U	10	U	5	U	5	U	5	U.	5	Ü
Hexachlorocyclopentadiene	10	U	10	Ü	10	Ü	5	U	5	Ü	5	Ü	5	Ū
2,4,6-Trichlorophenol	10	U	10	U	10	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	25	U	, 25	U	25	U	20	U	20	U	20	U	20	U
1,1'-Biphenyl	10	U	10	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
2-Chloronaphthalene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
2-Nitroaniline	25	U	25	U	25	U	20	U	20	U	20	U	20	U
Dimethylphthalate 2,6-Dinitrotoluene	10 10	U	10 10	U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	U
Acenaphthylene	10	U	10	Ü	10	U	5	U	5	U	5	U	5 5	
3-Nitroaniline	25	U	25	U	25	U	20	U	20	U	20	U	20	
Acenaphthene	10	U	10	U	10	U	5	U	5	U	5	U	5	
2,4-Dinitrophenol	25	U	25	U	25	U	20	U	20	U	20	U	20	U
4-Nitrophenol	25	U	25	U	25	U	20	U	20	U	20	U	20	
Dibenzofuran 2,4-Dinitrotoluene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Diethylphthalate	10 10	U	10 10	U	10	U	5 5	U	5	U	5 5	U	5 5	U
Fluorene	10	Ü	10	Ü	10	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	5	U	5	U	5	U	5	U
4-Nitroaniline	25	U	25	U	25	U	20	U	20	U	20	U	20	
4,6-Dinitro-2-methylphenol	25	U	25	U	25	U	20	U	20	Ü	20	U	20	U
N-Nitrosodiphenylamine 4-Bromophenyl-phenylether	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	10 10	U	10 10	U	10 10	U	5 5	U	5 5	U	5	U	5	U
Atrazine	10	U	10	U	10	U	N/A	U	N/A	U	5 N/A	U	5 N/A	U
Pentachlorophenol	25	Ü	25	UJ	25	U	20	U	20	U	20	U	20	
Phenanthrene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Anthracene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Carbazole	10	U	10	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
Di-n-butylphthalate	10	U	10	U	10	U	5		5	U	5	U	5	
Fluoranthene Pyrene	10 10	U	10 10	U	10	U	5	U	5	U	5 5	U	5	U
Butylbenzylphthalate	10	U	10	U	10 10		5 5 5	U	5 5	U	5	U	5	U
3.3'-Dichlorobenzidine	10	U	10	U		U	5	U	5 5	U	5	U	5 	U
Benzo(a)anthracene	10	U	10	U	10	U	5	U	5	IJ	5	U	5	U
Chrysene	10	U	10	Ū	10		5		5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	1	J	5	U	5	U	1	J
Di-n-octylphthalate	10	U	10	U	10	U	5	U	5	U	5	U	5	
Benzo(k)fluoranthene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene Benzo(a)pyrene	10	U	10	U		U	5	U	5	U	5	U	5	
Indeno(1,2,3-cd)pyrene	10 10	U	10 10	U	10 10	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	5 5	U	5 5	U	5 5	U	5 5	
Benzo(g,h,i)perylene	10	Ü	10	U	10	U	5	U	5	U	5	U	5	
		United Michigan	.0				9		3	9.0	3	J	3	U

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG: E0013 CLIFFS CON AATSLA		ER											
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0013 G101 Water ug/L 05/22/2001 11:55 N/A 7.0 1.0		E0019 G102 Water ug/L 05/22/2001 13:30 N/A 7.0 1.0		E0024 FB Water ug/L 05/22/2001 15:40 N/A 7.0 1.0		E0007 G201 Water ug/L 05/22/2001 08:50 N/A 6.8 1.0		E0008 G202 Water ug/L 05/22/2001 08:50 N/A 6.8 1.0		E0009 G203 Water ug/L 05/22/2001 09:20 N/A 7.4 1.0		E0004 FB Water ug/L 05/22/2001 09:00 N/A 7.0 1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor Aldrin Heptachlor epoxide Endosulfan I Dieldrin 4,4'-DDE Endrin Endosulfan II 4,4'-DDD Endosulfan sulfate 4,4'-DDT Methoxychlor Endrin ketone Endrin aldehyde alpha-Chlordane gamma-Chlordane Toxaphene Aroclor-1221 Aroclor-1232 Aroclor-1242	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.1		0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.1	000000000000000000000000000000000000000	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.1		0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.020		0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.020		0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.020 0.040 0.020 0.040 0.020 0.020 0.040 0.020 0.020 0.020 0.040 0.020 0.020 0.020 0.040 0.020 0.020 0.020 0.020 0.040 0.020 0.020 0.020 0.020 0.020 0.030 0.040 0.040 0.040 0.050 0.	טכטכטכטטטטטטטטט	0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.020	

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : ME00 [:] CLIFFS CON SENTIN		ER											
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Solids : Dilution Factor :	ME0013 G101 Water ug/L 05/22/2001 11:55 0.0 1.0		ME0019 G102 Water ug/L 05/22/2001 13:30 0.0 1.0		ME0024 FB Water ug/L 05/22/2001 15:40 0.0 1.0		SO1 G201 Water ug/L 05/22/2001 08:50 0.0 1.0		DO1 G202 Water ug/L 05/22/2001 08:50 0.0 1.0		SO2 G203 Water ug/L 05/22/2001 09:20 0.0 1.0		RO1 FB Water ug/L 05/22/2001 09:00 0.0 1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CHROMIUM COBALT COPPER IRON LEAD MAGNESIUM MANGANESE MERCURY NICKEL POTASSIUM SELENIUM SILVER SODIUM THALLIUM VANADIUM ZINC CYANIDE	168 3.0 4.0 37.9 0.20 0.30 92000 0.70 1.1 0.79 54.6 1.5 48700 1.7 0.10 1.7 3340 3.4 0.80 21900 3.9 0.90 7.8	U U U U U U U U U U U U U U U U U U U	5680 3.0 5.9 172 0.35 0.30 149000 8.6 5.7 18.3 19700 16.0 55100 5970 0.18 12.4 4950 3.4 0.96 82900 3.9 11.8 64.4 1.1	U	168 3.0 4.0 1.7 0.20 0.30 136 0.70 1.1 0.70 54.6 1.5 132 1.6 0.10 1.5 134 3.4 0.80 569 3.9 0.90 0.80 1.1	200000000000000000000000000000000000000	67.9 4.0 2.0 92 0.4 0.3 13400 3.0 0.9 2.0 717.0 2.0 67400 46.9 0.5 2.4 3310 4.0 1.0 53200 8.0 12.1 25.0 8.0		63.9 4.0 2.0 91.4 0.5 0.3 133000 3.0 0.8 2.0 714 0.5 66900 46.6 0.5 2.6 3390 1.0 52900 4.0 12.8 25.0 8.0	U U U U U U U U U U U U U U U U U U U	53.3 4.0 2.0 36.2 0.3 100000 3.0 0.4 2.0 6.7 2.0 50000 0.7 0.5 1.5 3070 4.0 11.7 25.0 8.0	U U U U U U U U U	40 4.0 2.0 2.0 0.1 0.3 38.5 3.0 0.8 2.0 11.0 2.0 0.5 2.0 600 4.0 1.0 221 4.0 9.1	



Analytical Results (Qualified Data)																	Page 1	
case #: 29298 Site : ab. : Reviewer : Jate :	SDG : E0010 CLIFFS CONTA AATSLA	AINE	R															
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : OH :	E0011 S101 Soil ug/Kg 05/22/2001 11:15 54		E0010 \$102 \$0il ug/Kg 05/22/2001 11:10 68		E0014 \$103 \$0il ug/Kg 05/22/2001 11:55 54		E0016 \$104 \$0il ug/Kg 05/22/2001 12:45 18		E0017 \$105 \$oil ug/Kg 05/22/2001 13:15 48		E0018 \$106 \$0il ug/Kg 05/22/2001 13:15 22		E0020 X101 Soil ug/Kg 05/22/2001 14:30 22	E0021 X102 Soil ug/Kg 05/22/200 14:50 6	01	E0022 X103 Soil ug/Kg 05/22/2001 15:10 4	E0023 X104 Soil ug/Kg 05/22/20 15:30 5	01
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0		1.0	1.0		1.0	1.0	
Volatile Compound	Result F	lag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result F	lag	Result Flag	Result	Flag	Result Flag	Result	F
Rection of the comment of the commen	20 20 20 20 20 20 30 20 20 20 20 20 20 20 20 20 2	##	30 30 30 30 30 30 30 30 45 30 30 30 30 30 30 30 30 30 30 30 30 30	<u>## 5 ## 5 ## 5 ## 5 ## 5 ## 5 ## 5 ## </u>	22 22 22 22 22 24 22 24 22 24 22 22	#3#3#3#3#3# <mark>-</mark> #0#3#3 <mark>-3</mark> #3#3#3 <mark>-</mark> 3#3-3#3-3#3	12 12 12 12 13 12 12 13 14 12 12 12 12 12 12 12 12 12 12 12 12 12	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	20 30 20 20 20 20 5 5 20 30 4 4 4 4 20 30 30 20 20 20 20 20 20 20 20 20 2	03 03 03 03 03 03 03 03 03 03	13 13 13 13 13 13 13 13 13 13 13 13 13 1	#3#3#3#3#3#5#65#3#3#3#3#3#3#3#3#3#3#3#3#	2 J HS WAR AND	0	## ## ## ## ## ## ## ## ## ## ## ## ##	11 U. 11 U. 11 U. 11 U. 11 U. 11 U. 13 U. 11 U. 13 U. 11 U. 13 U. 11 U. 13 U. 11 U. 14 U. 15 U. 16 U. 17 U. 18 U. 18 U. 11 U. 18 U. 19 U.		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Agienes (fotal) Styrene Stornofarm sopropylbenzene 1,3-2,7-efrachioroethane 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-A-Trichlorobenzene 1,4,4-Trichlorobenzene lighlighted entries are at least three	20 26 20 26 20 20 20 20 20 20 20 20	03 03 03 03 03 03	30 30 30 30 30 30 30 30 30 30	UJ UJ UJ UJ UJ UJ UJ	22 22 22 22 22 22 22 22 22 22 22 22	UJ UJ UJ UJ UJ UJ UJ	12 12 12 12	01 03 03 03 03 01 01	20 <u>20</u> 20	01 01 01 01 01 01	13 13 13 13 13 13	01 01 01 01 01 01	11 U.		9 UJ 9 UJ 9 UJ 9 UJ 9 UJ 9 UJ 9 UJ	11 U.		9 9 9 9 9 9 9 9



KEY SOIL & SEDIMENT SAMPLES TABLE 9

Analytical Results (Qualified Data) Page 2 SDG: E0010 Case #: 29298 Site : CLIFFS CONTAINER Lab. : AATSLA Reviewer Date : E0026 E0027 E0028 E0029 E0030 E0031 E0032 E0033 E0034 E0035 Sample Number: X105 X106 X107 X108 X109 X110 X111 X112 X113 X114 Sampling Location : Soil Soil Soil Soil Soil Soil Soil Soil Soil Matrix : Soil Units: ug/Kg Date Sampled : 05/22/2001 05/22/2001 05/22/2001 05/22/2001 05/23/2001 05/23/2001 05/23/2001 05/23/2001 05/23/2001 05/23/2001 15:40 16:20 16:20 08:35 08:50 09:00 09:40 10:30 Time Sampled : 16:00 08:20 %Moisture: 22 30 21 16 24 23 18 19 28 26 : Ha 1.0 1.0 1.0 1.0 1.0 1.0 Dilution Factor: 1.0 1.0 10 10 Background Result Flag Result Flag Volatile Compound Result Flag Result Result Result Flag Result Flag Result Flag Result Flag Flag Flag Result 12 U3 ÚЭ U 11 0 11 UJ 11 U 18 U UJ Exchergetifluorgmethans 13 13 IJ Chloromethane UJ 12 UJ U 11 U UJ 12 UJ 11 U U 12 12 U 18 14 11 (Ž) Vinyl Chlande 12 w Ųij Ų 11 V 11 U 14 U 13 IJJ w Ų 18 12 UJ 12 UJ 12 U 11 U 11 UJ 12 UJ 11 U 18 U 14 U 13 IJ Bromomethane Chloroethane. 12 UJ 12 UJ 12 U 11 U 11 03 27 J 12 UJ 11 U 18 υ 14 U 13 UJ UJ Trichlorofluoromethane 12 12 11 UJ 11 U 18 U 14 U 13 IJ 12 UJ 12 UJ 12 12 UJ 1.1-Dichlorgethene U 31 LU 11 | U3 11 U 18 u 14 U 13 IJ 1,1,2-Trichloro-1,2,2-trifluoroethane 12 UJ 13 57 UJ U 12 UJ 12 U 11 11 UJ 12 UJ 18 14 U 11 U U U 140 51 110 U 330 23 37 U Acetone 55 U U 50 J J J 970 J J IJ Carbon Disulfide 12 UJ 11 UJ 4 12 2 J 13 12 100 12 ЦÚ UJ. 41 IJ 11 100 UU 11 18 U 13 UJ U Methyl Acetate w Methylene Chloride 12 U 12 U 12 Ü 11 U 11 U 18 U 11 18 U 19 U 13 trans-1,2-Dichloroethe 12 UJ 12 UU 12 U 11 U 11 44 12 UU 11 U 18 U 14 U 13 IJ Methyl tert-Butyl Ether 12 UJ 12 UJ 12 U 11 U 11 UJ 12 UJ 11 U 18 U 14 U 13 UJ 13) 12 04 12 IJJ 11 U Ū ŪJ 1.1-Dichlorgethane 12 IJ 41 U 11 UJ 18 J 18 3 J cis-1,2-Dichloroethene 12 UJ 12 U 11 U 11 UJ 12 UJ 11 U 18 U 14 11 13 IJJ 83 2-Butanone 15 12 W 12 w 31 UJ 11 UJ 49 190 J 18 U.I 13 UJ 12 UJ 12 UJ U 11 UJ 12 UJ U UJ Chloroform 12 11 U 11 U 18 14 U 13 1.1.1 Trichlome w 12 UJ UJ 12 31 U 11 143 ÚÚ Ų 13 ŪJ Ų 12 14 U 18 8 Cyclohexane 12 UJ 12 12 U 11 U 11 UJ 12 UJ 11 U 18 U 14 U 13 IJ Carbon Tetrachionide 12 UJ 32 UJ 12 U 11 U 11 00 32 UU 11 U 18 U 14 U 13 UJ 12 UJ 12 UJ 11 UJ 11 UJ ŪĴ Benzene 12 UJ 12 UJ 14 UJ 13 6 J U J 300 11 00 12 12 UJ 11 4.2-Dichloroethane IJJ 48 12 U 13 IJ Trichloroethene 12 UJ 12 UJ 12 U 11 U 11 UJ 11 18 U 14 U 13 IJJ U J 31 U 20 ŪĴ trethylcyclohexene: J 12 U J J 5 J J 13 2 1.2-Dichloropropane 12 12 UJ 12 UJ 11 U 11 U 11 12 18 14 11 13 UJ U Bromodichloromethane 12 W 12 UJ 12 U ** | 0 11 100 12 UJ ## WU 18 U 14 U 13 IJ cis-1,3-Dichloropropene 12 UJ 12 UJ 12 U 11 UJ 12 UJ 11 U 18 U 14 U 13 UJ 12 W 12 UJ 12 U 11 0 12 UJ 44 U 18 U 14 U 4-Methyl-2-11 44 13 IJ Toluene 2 J 12 UJ 12 U 11 U 360 360 J 12 UJ 11 UJ 18 UJ 14 UJ trans-1.3-Dichlomprope 12 UJ 11 83 18 U 12 U 11 U 14 U 13 UJ 1,1,2-Trichloroethane 12 UJ 12 UJ 12 U 13 11 U 11 UJ 12 UJ 11 U 14 U UJ UJ Tetrachioroettene 12 UJ 12 UJ 12 UJ 12 UJ 31 U 11 03 12 U 11 U 14 U J 18 U 13 2-Hexanone 12 U 11 U 11 UJ 12 UJ 11 U 18 U 14 U 13 UJ 11 U Extremochieromethar 12 UJ 12 UJ 12 U 31 0 11 03 12 UJ 38 U 18 U 13 UJ 1,2-Dibromoethane 12 UJ 12 UJ 12 UJ ŪĴ 12 U 11 U 11 UJ 11 U 18 U 14 U 13 Chloropenzene 12 LU 12 | UJ W w 12 UU 11 UJ 18 UJ w 13 ŲJ Ethylbenzene 12 UJ 12 UJ 12 UJ 11 UJ 18 UJ 13 ÚĴ 11 UJ 200 11 UJ 14 U.I 12 UJ Xylenes (total) 12 01 12 03 11 U3 11 00 890 18 UJ 14 U.S 7 UJ J 13 IJJ 12 UJ 11 UJ 14 UJ 12 UJ 11 UJ 12 UJ 11 18 UJ 13 UJ Bromofann 12 UJ 12 UJ 12 U 12 | UJ 18 U 13 ŪĴ 11 00 11 U 12 UJ 12 | U.I 12 UJ Isopropylbenzene 11 UJ 11 UJ 17 68 14 UJ 13 UJ 1.1,2,2-Tetrachiometha 12 W 12 UJ U 8 w 12 UJ 11 Q 18 U 14 U. 13 13 IJ 12 UJ 12 UJ 12 UJ 12 UJ 18 UJ UJ UJ 1,3-Dichlorobenzene 11 UJ 11 UJ 11 UJ 14 UJ 12 UJ 12 UJ 12 UJ 1.4-Dichtorobenzene 12 UJ 11 UJ 11 W 14 00 12 | UU 11 UJ 18 UJ 13 12 UJ 1,2-Dichlorobenzene 12 UJ 11 UJ 11 UJ 12 UJ 3 J 18 UJ 14 UJ 13 IJ 18 UJ UJ. 1,2-Dibromo-3-chiaroprap 12 UJ 32 UJ 12 U 11 U 11 83 32 U.L 11 U 14 U 13 1,2,4-Trichlorobenzene 12 UJ 12 UJ 13 12 UJ 11 UJ UJ 12 UJ 11 UJ 14 11 UJ

Highlighted entries are at least three time background, some will be ten times background if background is an estimated value.

Analytical Results (Qualified Data) ase #: 29298 te : tb : eviewer : ate :	SDG : E0010 CLIFFS CONTAIN AATSLA	NER						E.		Page 1
tample Number : tampling Location : tatrix : tat	E0011 S101 Soil ug/Kg 05/22/2001 11:15 54 7.8	E0010 S102 Soil ug/Kg 05/22/2001 11:10 68 7.8	E0014 S103 Soil ug/Kg 05/22/2001 11:55 54 7.7 1.0	E0016 S104 Soil ug/Kg 05/22/2001 12:45 18 8.1 1.0	E0017 S105 Soil ug/Kg 05/22/2001 13:15 48 7.5 1.0	E0018 S106 Soil ug/Kg 05/22/2001 13:15 22 7.5 1.0	E0020 X101 Soil ug/Kg 05/22/2001 14:30 22 7.5 1.0	E0021 X102 Soil ug/Kg 05/22/2001 14:50 6 8.1 1.0	E0022DL X103 Soil ug/Kg 05/22/2001 15:10 4 8.4 10.0	E0023 X104 Soil ug/Kg 05/22/2001 15:30 5 8.4 1.0
Semivolatile Compound	1.0 Result Flag		Result Flag		Result Flag			Result Flag	Result Flag	Result F
enzaldehyde	720 8		720 U	400 U	630 U	420 U	420 U	350 LJ	3400 U	350
henol is-(2-Chloropethyl) ether Chlorophenol Methylphenol Methylphenol Methylphenol Petropethylphenol Strone di-repropylarione exachioroethane firoberspre ophorone Mitrophenol A-Dimethylphenol Strone di-repropylarione exachioroethane A-Dictorophenol aphitralierie Chlorophenol Strone di-repropylarione A-Dictorophenol aphitralierie Chlorosaline exachiorobiadiene aprolactam Methylphenol Chloros-S-methylphenol Schicos-S-methylphenol Chloros-S-methylphenol Chloros-S-methylphenol Chloros-S-methylphenol Schicos-S-methylphenol Chloros-S-methylphenol Chloros-S-methylphenol Schicos-S-methylphenol Hethylphenyl Chloros-S-methylphenol Nitrophylphenol Nitrophylphenol Nitrophylphenol Nitrophylphenol Nitrophylphenol Nitrophenol Nitrophenol Nitrophenol Nitrophenol Sitrosachiore Bornophenyl-phenyl ether Nitrosachiore Sitrosachiore Bromophenyl-phenylether scarchiorophenol Hernarthree Bromophenyl-phenylether scarchiorophenol Hernarthree idrivackine arbazole H-razbel H-razbel Hornophenyl-phenylether scarchiorophenol Hernarthree idrivackine arbazole H-razbel H-razbel Hornophenyl-phenylether Sitrosachiphical Hernarthree Hern	720 U	1000 U 10	720 U	400 U	\$30 U \$30 G S S S S S S S S S S S S S S S S S S	420 U	420 U	350 U	3400 U	350 350 350 350 350 350 350 350 350 350

CLIFFS CONTAINER COMPANY Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : E0010 CLIFFS CONTAIN AATSLA	ER								Page 2
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : Whotsture : pH : Dilution Factor :	E0026 X105 Soil ug/Kg 05/22/2001 15:40 22 7.3 1.0	E0027DL X106 Soil ug/Kg 05/22/2001 16:00 30 7.5 2.0	E0028 X107 Soil ug/Kg 05/22/2001 16:20 21 7.6 1.0	E0029 X108 Soil ug/Kg 05/22/2001 16:20 16 7.2	E0030 X109 Soil ug/Kg 05/23/2001 08:20 25 7.9 .1.0	E0031 X110 Soil ug/Kg 05/23/2001 08:35 23 8.8 1.0	E0032 X111 Soil ug/Kg 05/23/2001 08:50 18 8.7 1.0	E0033 X112 Soil ug/Kg 05/23/2001 09:00 19 8.7 1.0	E0034 X113 Soil ug/Kg 05/23/2001 09:40 28 7.9 1.0	E0035 X114 Soil ug/Kg 05/23/2001 10:30 26 8.3 1.0 Background
Semivolatile Compound Benzaldishyde Phenol Benzaldishyde Phenol 2 Chlorosethyl) ether 2 Chlorosethyl) ether 2 Chlorosethyl) ether 2 Chlorosethyl 3 Chlorosethyl 4 Methylphenol 3 Chlorosethyl 5 Hillipsaccel 6 Hill	Result Flag	Result Flag 340 U 940 U	Result Flag	Result Flag 390 U	Result Flag	Result Flac Flac	Result Flag	Result Flag #16 U #16 U #17 U #18 U #19	#80 U 460 U	Result F 450 450 450 450 450 450 450 450 450 450

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : E0010 CLIFFS CON AATSLA		ER															×	Page 1	
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0011 S101 Soil ug/Kg 05/22/2001 11:15 54 7.8 1.0		E0010 \$102 Soil ug/Kg 05/22/2001 11:10 68 7.4 1.0		E0014 \$103 \$0il ug/Kg 05/22/2001 11:55 54 7.7 1.0		E0016 \$104 \$0il ug/Kg 05/22/2001 12:45 18 8.1 1.0		E0017 S105 Soil ug/Kg 05/22/2001 13:15 48 7.4 1.0		E0018 \$106 \$0il ug/Kg 05/22/2001 13:15 22 7.5 1.0		E0020 X101 Soil ug/Kg 05/22/2001 14:30 22 7.5 1.0		E0021 X102 Soil ug/Kg 05/22/2001 14:50 5 8.1 1.0		E0022 X103 Soil ug/Kg 05/22/2001 15:10 4 8.4 1.0		E0023 X104 Soil ug/Kg 05/22/2001 15:30 5 8.4 1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	FI
alpha-BHC	0.63	J	5.3	U	3.7	U	0.47		3.3	U	2.2	U	2.2	11	0.084	J	1.8	11	0.47	J
beta-BHC	1.6	Ĵ	30	J	3.7	U	2.3		0.64	Ĩ	2.2		28	J	0.73	Ĵ	1.8	U	1.8	N 150
delta-BHC	1.2	Ĵ	9.9	J	3.7	Ŭ	1.0	1	3.3		2.2		2.2		0.73	Ĭ,	0.18	J	1.8	l
gamma-BHC (Lindane)	3.7	Ü	5.3	U	3.7	U	2.1	U	3.3	U	2.2	U	17	J	1.8	U	1.8	U	1.8	U
Heptachlor	3.7		6.5	J	3.9		1.2	J		ŭ	2.2		32	J	1.8	Acres 1000		J		
				0.70000				J						20200000		Ų	0.96	100000000000000000000000000000000000000	0.93	J
Aldrin	1.4	J	25	U	0.69	J	1.3	J	3.3	U	2.2	U	28	J	2.1		1.8	U	0.63	J
Heptachlor epoxide Endosulfan I	3.7 0.81	U	5.3 1.1	J	3.7 1.5	U J	2.1 2.1	U	3.3 0.82	J	2.2 0.80	Ų J	2.2 0.67	J	1.8	U	1.6	J J	1.8	L
Dieldrin	3.7	J	8.5	100000000000000000000000000000000000000	3.7										1.8		1.3		0.22	J
		J		J		J	0.76	J	2.1	J	1.9	J	0.89		0.87	J	3.4		1.2	J
4,4'-DDE 	13	102020000	46	J	19		4.2	******	11	00000000	11	00000000	1.6		25		9.0	J	3.2	J
Endrin	7.2		1.7	J	7.2	U	4.0		6.4	U	4.2		0.55		2.5	J	3.4		1.0	J
Endosulfan II	7.2	U	10	U	7.2	U	4.0	U	6.4	U	4.2	U	1.2		3.5	U	0.26	J	3.5	U
4,4'-DDD	40		130	J	68		15		23		22		2,9		83		3.6	J	4.9	
Endosulfan sulfate	2.7	J	5.9	J	2.8	J	1.5	J	3.3	J	1.5	J	4.2		0.82	J	18	J	2.9	J
4,4'-DDT	16		13			J	4.0		13		7.0		5.0		66		15		6.2	
Methoxychlor	37	U	53	U	37	U	21	U	33	U	22	U	10		18	U	7.1	J	18	
Endrin ketone	7.2	U	10			U	4.0		6.4	U	4.2		4.2	U	3.5		13	J	3,5	
Endrin aldehyde	7.2	U	10	U	7.2	U	4.0	U	6.4	U	4.2	U	4.2		3.5	U	8.8	J	3.5	L
alpha-Chlordane	2.7	J	13	J	11		0.95		3.0	J	2.6		2.2		0.86	J	12	J	2.7	
gamma-Chlordane	3.1	J	13	J	8.4	00200000	1.2		2.5	J	2.3	0000000	1.1		1.0	J	1.8	U	0.62	
Toxaphene	370		530	U	370		210		330	U	220		220		180		180	U	180	
Aroclor-1016	72	U	100	U	72	U	40		63	U	42		42	U	35	U	34	U	35	
Aroclor-1221	150		210	u	150		82		130		86		86		71	U	70	U	71	
Aroclor-1232	72	U	100	U	72	U	40		63	U	42		42		35	U	34	U	35	
Aroctor-1242	72	U	100	U	72	U	40		63	U	42		42		35		34	U	35	
Aroclor-1248	72	U	100	U	72	U	40		63	U	42	U	42		35	U	34	U	35	L
Aroclor-1254	72	U	100	U	72	U		U	63		42		42		35	U	34	U	35	Į L
Aroclor-1260	72	U	100	U	72	U	40	U	63	U	42	U	42	U	35	U	34	U	35	Tu

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : E0010 CLIFFS CON AATSLA		ΕR																Page 2
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0026 X105 Soil ug/Kg 05/22/2001 15:40 22 7.3 1.0		E0027 X106 Soil ug/Kg 05/22/2001 16:00 30 7.5 1.0		E0028 X107 Soil ug/Kg 05/22/2001 16:20 21 7.6 1.0		E0029 X108 Soil ug/Kg 05/22/2001 16:20 16 7.2 1.0		E0030 X109 Soil ug/Kg 05/23/2001 08:20 24 7.9 1.0		E0031 X110 Soil ug/Kg 05/23/2001 08:35 22 8.8 1.0		E0032 X111 Soil ug/Kg 05/23/2001 08:50 18 8.7 1.0		E0033 X112 Soil ug/Kg 05/23/2001 09:00 19 8.7 1.0		E0034 X113 Soil ug/Kg 05/23/2001 09:40 28 7.9 1.0		E0035 X114 Soil ug/Kg 05/23/2001 10:30 26 8.2 1.0 Background
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor Aldrin Heptachlor epoxide Endosulfan I Dieldrin 4.4'-DDE Endrin Endosulfan II 4.4'-DDD Endosulfan sulfate 4.4'-DDT Methoxychlor Endrin ketone Endrin ketone Endrin Aldehyde alpha-Chlordane gamma-Chlordane	2.2 2.2 2.2 2.2 0.51 2.2 2.2 1.8 2.0 4.2 4.2 1.5 0.83 2.9 2.2 4.2 4.2 4.2 1.1 1.1	,	0.46 2.4 2.4 2.4 0.34 2.4 1.2 2.7 4.7 4.7 2.5 0.78 2.3 2.4 4.7 4.7 0.94	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 0.72 4.6 4.2 4.2 2.6 0.46 3.8 22 4.2 2.4 2.4 2.4 2.4 2.6 3.8 2.2		0.27 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.7 7.9 1.4 3.9 7.5 1.2 9.6 2.0 3.9 3.9		2.2 0.67 2.2 2.2 2.3 0.33 2.2 11 0.43 1.0 6.1 1.0,77 9.8 2.2 1.5 1.5 2.2 0.38	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	43 2.2 2.2 2.2 2.2 2.2 2.2 4.2 4.2 4.2 4.2	ט פיט פיט פיט פיט פיט פיט פיט פיט פיט פי	1.7 2.1 2.1 2.1 0.51 4.0 4.1 4.0 4.0 5.4 4.0 1.5 21 2.0 1.1 0.61 0.65		5,4 2,1 2,1 2,1 2,1 2,1 0,53 2,1 12 12 1,4 4,1 8,0 4,9 4,1 8,5 4,4 11 1,8 8,5	1 0 1 0 0	2.4 2.4 2.4 2.4 2.4 0.82 2.4 1.2 11 0.72 4.6 4.9 0.60 19 24 1.1 1.6 0.61		2.3 L 2.3 L 2.3 L 2.3 L 2.3 L 0.21 J 0.42 J 3.6 S 5.9 4.5 L 0.94 J 5.2 0.93 J 3.1 J 2.3 L 1.1 J 2.3 L
Toxaphene Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	220 42 86 42 42 42 42 42 42	טשטשט	240 47 96 47 47 47 47 47	U U U	42 42	U U U U	200 39 80 39 39 39 39	U U U U	43 43 43	U U U U U	220 42 86 42 42 42 42 42 42	U U U U U	40 40	U	210 41 83 41 41 41 840 41	U U U U	240 46 93 46 46 46 46 46	U U U U	230 45 91 45 45 45 45 45

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : .ab. : Reviewer : Date :	SDG : ME00' CLIFFS CON SENTIN		ER																Page 1	
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Solids : Dilution Factor :	ME0011 S101 Soil mg/Kg 05/22/2001 11:15 51.0 1.0		ME0010 S102 Soil mg/Kg 05/22/2001 11:10 43.0 1.0		ME0014 S103 Soil mg/Kg 05/22/2001 11:55 30.5 1.0		ME0016 S104 Soil mg/Kg 05/22/2001 12:45 78.7 1.0		ME0017 S105 Soil mg/Kg 05/22/2001 13:15 57.1 1.0		ME0018 S106 Soil mg/Kg 05/22/2001 13:15 54.1 1.0		ME0020 X101 Soil mg/Kg 05/22/2001 14:30 78.0 1.0		ME0021 X102 Soil mg/Kg 05/22/2001 14:50 93.3 1.0		ME0022 X103 Soil mg/Kg 05/22/2001 15:10 93.3 1.0		ME0023 X104 Soil mg/Kg 05/22/2001 15:30 92.0 1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
ALUMINUM	9430		10500		18400		4170		4940		6070		11400		5180		2980		2350	
ANTIMONY	1.2	UJ	1.6	J	2.2	J	0.86	J	1.2	.1	1.1	UJ	0.77	UJ	0.63	UJ	0.64	UJ		
ARSENIC	6.8	Ü	10.1	li i	8.8	Ŭ	3.4	ı ğ	2.5	ŭ	4.9	ŭ.	8.5	3	2.5	Ű	1.6	J.	2.8	
BARIUM	119	00000000	119	********	267	**************************************	39.5	10000000	99.0	10000 00 000	106	K0000	264	P4400	60.7	00000₹ 600	29.1		97.0	
BERYLLIUM	0.58		0.68		1.1		0,31		0.29	8333338 83333388	0.38		0.78		0.72		0.27		0.21	
CADMIUM	2.0	20000000	3.2	10000000	5.5	*********	0.66	100000000	0.68	00000000000	1.1	000000000	0.31	000000000	0.17	100000000	0.070	********	0.21	
CALCIUM	58400	J	58500	J		J	107000	J	52100		53500		80100	1	147000	J	143000	J	137000	
CHROMIUM	36.3	1 	53.8		142		12.2	******	19.4	0000 00 000	26.1	*********	16.5	000000000	11.0		3.7	********	8.6	
COBALT	9.3		10.6		16.3		2.9		4.2		5.4		9.8		1.8		1.9		3.3	
COPPER	35.2	J	73.6	J	87.5	J	12.1	J	27.7	J	36.2	J	20.3	J	12.4	J	3.6	J	14.1	
IRON	19100		24300		31900		9900		10100		12700		24900		8330		5820		15600	
LEAD	60.0		111		221	I	31.7		44.6		64.0		33.8		198	1	9.7	1	41.1	
MAGNESIUM	32600		20800		38400		67000		25600		30100		45900		86500		82100		88000	
MANGANESE	288	J	382	J	380	J	247	J	277	J	353	J	2260	J	777	J	465	J	354	
MERCURY	0.14		0.23		0,28		0.060	U	0.080	U	0.080	Ū	0.080		0.050	U	0.050	U		
NICKEL	26.8	T	37.1		67.5		9.1		11.7		15.4		21.8		4.6	1	4.6		7.9	
POTASSIUM	1910		2090		3690		1060		1090		1400		2520		839		920		673	
SELENIUM	1.3	U	1.6	U	2.2	U	0.86	U	1.2	U	1.3	U	0.87	U	0.71	U	0.72	U	0.74	
SILVER	1.5		2.2		4.3		0.20	U	0.80		1.1		0.47		0.86		0.17	U	0.17	U
SODIUM	594		600		1010		440		523		550		364		379	1	313		533	
THALLIUM	1.5	U	1.8	U	2.6	U	0.99	U	1.3	U	1.4	U	1.0	U	0.82	U	0.83	U	0.85	
VANADIUM	18.5		23.7		35.0		10.3		10.4		12.6		25.3		7.3	1	6.5	1	7.7	
ZINC	171		300		414		54.4		112		152		88.7		34.9		12.2		218	
CYANIDE	0.11	UJ	0.13	UJ	0.18	UJ	0.070	UJ	0.10	*********	TOTAL TO	UJ	0.070	UJ	1.1	J	0.96	400000000	1.3	

Romeoville, Illinois

Analytical Results (Qualified Data) Case #: 29298 Site : .ab. : Reviewer : Oate :	SDG : ME00° CLIFFS CON SENTIN		ER																Page 2	
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Solids : Dilution Factor :	ME0026 X105 Soil mg/Kg 05/22/2001 15:40 67.2 1.0		ME0027 X106 Soil mg/Kg 05/22/2001 16:00 76.2 1.0		ME0028 X107 Soil mg/Kg 05/22/2001 16:20 78.4 1.0		ME0029 X108 Soil mg/Kg 05/22/2001 16:20 71.8 1.0		ME0030 X109 Soil mg/Kg 05/23/2001 08:20 70.4 1.0		ME0031 X110 Soil mg/Kg 05/23/2001 08:35 86.3 1.0		ME0032 X111 Soil mg/Kg 05/23/2001 08:50 82.6 1.0		ME0033 X112 Soil mg/Kg 05/23/2001 09:00 74.3 1.0		ME0034 X113 Soil mg/Kg 05/23/2001 09:40 80.1 1.0		ME0035 X114 Soil mg/Kg 05/23/2001 10:30 67.4 1.0 Background	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fl
ALUMINUM	14700		11100		15300		16900		13700		4150		7830		5330		10600		15200	
ANTIMONY	0.88	UJ	1.4	J	1.2	J	0.83	UJ	1.2	J	1.7	J	0.80	J	1.7		0.75	UJ	1.7	
ARSENIC	9.7	J	13.2	3	9.4	J	12.0		11.8	J	3.4	J		1	6.8		9.3	J	11.3	
BARIUM	530		450	00000000	120		378	000000000	148	*********	216	00000	64.1	0000000000	144		152	000000000000000000000000000000000000000	151	
BERYLLIUM	1.0		0.80		0.88	*****	1.1	*******	0.91	*****	0.39		0.50	******	0.80		0.56		1.0	Sec. 10000
CADMIUM	0.53		0.39	******	0.28	********	0.080	U	1.5	*******	0.32		0.12		1.5		0.42	***************************************	2.1	
CALCIUM	27000	J	31100	3	17200	J	13800	J	19000	J	138000	J	85400	3	104000		63600	1	21400	
CHROMIUM	27.1		20.0	900	25.2		25.8													
COBALT								*******	31.2		6.7		15.7	*******	15.6		19.3		38.1	
COPPER	19.2 31.8		19.0 18.2		11.2		19.4 20.6		13.0		2.9 50.9		7.0		4.2		8.5		11.6	
		J		J	28.2	J		J	43.2	J		J	31.1	J	48.1	J	26.9		119	
IRON	41400	*********	38200		29900		45500		27000		8780		19700		13400		20700		27600	
LEAD	59.5		32.2	00000000	41.1	50000000	26.6	00000000	122	00000000	82.3		59.0		216		53.1	a conse	174	
MAGNESIUM	16300		17900		11000		9650		10700		86200		49000		60900	0.0000000000000000000000000000000000000	38500		12700	
MANGANESE	5490	J	5240	J	1160	J	3290	J	1160	J	408	J	549	J	344		795		728	
MERCURY	0.11		0.080		0,080		0.10		0.14		0.060		0.090		0.080		0.080		0.31	
NICKEL	37.9		35.7		27.6	500000000	31.1		29.1	00000000	7.5		19.3		15.7	450000000	19.4		30.6	
POTASSIUM	2860		1810		2270		2230		2150		814		1950		1350		2280		2850	
SELENIUM	1.2		0.89	U	0.85	U	0.94	U	0.95	U	0.78	U	0.82	U	0.91	U	0.85		1.5	
SILVER	1.4		1.4		0.89		1.4		0.87		0.18	U	0.26		0.65		0.40		1.5	
SODIUM	402		418		321		414		230		1040		524		719		345		290	
THALLIUM	1.1	U	1.0	U	0.98	U	1.1	U	1.1	U	0.89	U	0.94	U	1.0	U	0.97	U	1.1	
VANADIUM	32.9		27.1		30.5		36.6		31.9		9.2		18.3		13.2		26.0		30.2	
ZINC	137		91.1		125		101		402		92.1		114		411		110		442	
CYANIDE	0.080	UJ	0.10	1	1.3	J	0.080	UJ		UJ	0.14	J	0.070	UJ	0.070		0.070		0.37	

Romeoville, Illinois

KEY GROUNDWATER & DRINKING WATER SAMPLES TABLE 13

Analytical Results (Qualified Data)

Case #: 29298 Site :

SDG : E0013 CLIFFS CONTAINER AATSLA

Lab.:

Date :

Reviewer:

												_		_
Sample Number :	E0013		E0019		E0024		E0007		E0008		E0009		E0004	
Sampling Location :	G101		G102		FB		G201		G202		G203		FB	
Matrix:	Water		Water											
Units:	ug/L		ug/L											
Date Sampled :	05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001	
Time Sampled :	11:55		13:30		15:40		08:50		08:50		09:20		09:00	
%Moisture :	N/A		N/A		N/A		0.0		0.0		0.0		0.0	
pH:	7.0		7.0		7.0		6.8		6.8		7.4		7.0	
Dilution Factor :	1.0		25.0		1.0		1.0		1.0		1.0		1.0	
		-914												_
Volatile Compound	Result	Flag	Result	FI										

Dilution Factor :	1.0		25.0		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10	U	250	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
Chloromethane	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Vinyl Chloride	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Bromomethane	10	U	250	U	10	U	1	U	1	U	1	U	1	Ū
Chloroethane	10	Ü	250	Ŭ	10	Ŭ	·	Ü	•	Ŭ	4	ú∞	·	Ū
Trichlorofluoromethane	10	U	250	Ū	10	Ū	N/A	U	N/A	Ū	N/A	U	N/A	********
1,1-Dichloroethene	10	ŭ	250	Ŭ	10	Ŭ	1	Ŭ	1	Ü	4	Ŭ	4	Ŭ
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	250	U	10	Ü	N/A	U	N/A	U	N/A	U	N/A	
Acetone	10	ŭ	210	j	10	ŭı	5	ŭ	£	Ŭ	5	ŭ	É	Ŭ
Carbon Disulfide	10	U	250	U	10	U	1	U	1	U	1	U	1	Ū
Methyl Acetate	10	ŭ	250		10	Ü	N/A		N/A	Ŭ	N/A		N/A	
Methylene Chloride	10	U	56	J	1	J	2	U	2	U	2	U	2	U
trans-1,2-Dichloroethene	10	ŭ	250	Ŭ	10	Ů	4	U	4	ŭ	Z	Ŭ		ŭ
Methyl tert-Butyl Ether	10	U	250	U	10	U	N/A	U	N1/Λ	U	N1/A	U	NI/A	U
1,1-Dichloroethane	10	ŭ	250	Ü	10	Ü	IN/A	Ü	N/A	Ü	N/A	U	N/A	U
cis-1,2-Dichloroethene	10	Ü	250	U	10	Ü		U	4	U	4	U	1	U
2-Butanone		Ü	3000	٥							 			
***************************************	10		ARREST ARREST ARREST ARREST ARREST		10	U	5	U	5	U	5	U	5	U
Chloroform	10	U	250	U	10	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	10	U	250	U	10	Ų		Ų	· · · · · · · · · · · · · · · · · · ·	U	1	U		U
Cyclohexane	10	U	250	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
Carbon Tetrachloride	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Benzene	10	U	250	U	10	U	1	U	1	U		U	11	U
1,2-Dichloroethane	10	IJ	250	บม	10	เม	1	U	1	U	1	U	1	U
Trichloroethene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Methylcyclohexane	10	Ų	250	U	10	U	N/A	Ų	N/A	U	N/A	U	N/A	
1,2-Dichloropropane	10	U	250	U	10	U	1	U	1	U		U	1	U
Bromodichloromethane	10	U	250	U	10	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	10	U	250	U	10	U	1	U		U	1	U	1	U
4-Methyl-2-pentanone	10	UJ	250	UJ	10	UJ	5	U	5	U	5	U	5	
Toluene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	10	Ų	250	U	10	U	1	Ų	1	U	1	U		U
1,1,2-Trichloroethane	10	U	250	U	10	U		U		U		U	1	U
Tetrachloroethene	10	U	250	U	10	U	1	U		U	1	U	1	u
2-Hexanone	10	UJ	250	UJ	10	UJ	5	U	5	U	5	U	5	
Dibromochloromethane	10	U	250	U	10	U	1	U	1	U	1	U	1	
1,2-Dibromoethane	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Chlorobenzene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Ethylbenzene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Xylenes (total)	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Styrene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
Bromoform	10	U	250	Ų	10	U	1	U	1	U	1	U	1	U
Isopropylbenzene	10	U	250	U	10	U	N/A	U	N/A	U	N/A	U	N/A	U
1,1,2,2-Tetrachloroethane	10	U		U	10	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	10	U	250	U	10	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	10	U	250	U	10	U	1	U	1	U	1	Ū	1	Ū
1,2-Dichlorobenzene	10	U	250	U	10	U	1	U	1.	U	1	υ	1	U
1,2-Dibromo-3-chloropropane	10	U	250	U	10	U	1	u	4	U	1	Ü	4	Ŭ
1,2,4-Trichlorobenzene	10	U	250	U	10	U	1	U	1	U	1	Ü	1	U
				TER!										
Mathulana Chlarida in Linklinkta dulus					Name and Address of the Owner, which the		COLUMN CO							

Methylene Chloride is highlighted due to exceeding SCDM drinking water benchmarks.

2-Butanone is highlighted due to the constituent level being significantly above the other samples.

CLIFFS CONTAINER COMPANY
Romeoville, Illinois
KEY GROUNDWATER & DRINKING WATER SAMPLES
TABLE 14

Analytical Results (Qualified Data) Case #: 29298 Site : ab. : Reviewer : Date :	SDG : E0013 CLIFFS CON AATSLA		≣R											
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Moisture : pH : Dilution Factor :	E0013 G101 Water ug/L 05/22/2001 11:55 N/A 7.0 1.0		E0019 G102 Water ug/L 05/22/2001 13:30 N/A 7.0 1.0		E0024 FB Water ug/L 05/22/2001 15:40 N/A 7.0 1.0		E0007 G201 Water ug/L 05/22/2001 08:50 0.0 6.8 1.0		E0008 G202 Water ug/L 05/22/2001 08:50 0.0 6.8 1.0		E0009 G203 Water ug/L 05/22/2001 09:20 0.0 7.4 1.0		E0004 FB Water ug/L 05/22/2001 09:00 0.0 7.0 1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
Benzaldehyde		U	10	U	10	U	N/A	U	N/A	U	N/A	U	N/A	
Phenol bis-(2-Chloroethyl) ether	10 10	U	10	U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	
2-Chlorophenol	10	U	10	U	10	U	5	U	5	U	5	U	5	L
2-Methylphenol 2,2'-oxybis(1-Chloropropane)	10 10	U	10 10	U	10 10	U	5 5	U		U	5 5	U	5	
Acetophenone	10	U	10	U	10	U	N/A	U	N/A	U	N/A	U	NVA	
I-Methylphenol	10	U		U	10	U	5	U	5	U	5	U	5	
N-Nitroso-di-n-propylamine Hexachloroethane	10 10	U	10 10	U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	
Nitrabenzene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
sophorone 2-Nitrophenol	10 10	U	10 10	U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	200000
2,4-Dimethylphenol	10	U		U	10	U	5	U	5	U	5	Ü	5	
ois(2-Chloroethoxy)methane	10	U	10 10	U	10 10	U	5	U		U	5 5	U	5	U
2,4-Dichlorophenol Naphthalene	10 10	U	*****	U	10	Ŭ	5 5	U	5	u	5		5 5	U
1-Chloroaniline	10	R	10	R	10	R	5	U	5	U	5	U	5	U
Hexachlorobutadiene Caprolactam	10 10	U	10 10	U	10 10	U	5 N/A	U	5 N/A	U	5 N/A	U	5 N/A	U
I-Chloro-3-methylphenol	10	U	10	U	10	U	5	U	5	U		U	5	Ū
2-Methylnaphthalene Hexachlorocyclopentadiene	10 10	U	10 10	U	10 10	U	5	U	5 5	U	5	U	5	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	្ន 5	U	5	U	5. 5	U	5	U
2.4,5-Trichlorophenal	25 40	U		U	25	U	20	U	20	U	20	U	20	
l,1'-Biphenyl 2-Chloronaphthalene	10 10	U	*******************	U	10 10	U	N/A 5	U	N/A 5	U	N/A 5	U	N/A 5	U
2-Nitroaniline	25	U	25	U	25	U	20	U	20	U	20	U	20	U
Jimethylphthalate 2,6-Dinitrotoluene	10 10	⊂ ⊂		U	10 10	U	5 5	U	5. 5.	U	5 5	U	5	
Acenaphthylene	10	U	10	U	10	U	5	U	5	U	5	Ŭ	š	u
3-Nitroaniline Acenaphthene	25	U		U	25	U	20	U	20	U	20	U	20	
2,4-Dinitrophenol	10 25	U		U	10 25	U		U	5 20	U	5 20	U	5 20	
4-Nitrophenol	25	U	25	U	25	U	20	U	20	U	20	U	20	U
Dibenzofuran R,4-Dinitrotoluene	10 10	U		U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	
Diethylphthalate	10	U	10	U	10	U			5 5		5	U	5 5	
Fluorene I-Chlorophenyl-phenyl ether	10 10	Ü	10 10	Ŭ U	10 10	U	5 5 5	U	5 5	U		U	5 .	U
-Nitroaniline	25	U	25	U	25	U	20	U	20 20	U	20	U	20	U
,6-Dinitro-2-methylphenol I-Nitrosodiphenylamine	25 10	U		U	25 10	U	20 5	U	20 5	U	20 5	U	20 5	U
-Bromophenyl-phenylether	10	U	10	U	10	U	5	U	5	U	5	U	5	U
lexachlorobenzene trazine	10 10	U		U	10 10	U	5 N/A	U	5 N/A	U	5	U	5 N/A	Ų
entachlorophenol	25	U	25	UJ	10 25	U	N/A 20		N/A 20	U	N/A 20	U	N/A 20	U
henanthrene	10	U	10	U	10	U	5	U	5	U	5	U	5	U
inthracene Carbazole	10 10	U		U U	10 10	U	5 N/A	U	N/A	U	5 N/A	U	5 N/A	U
i-n-butylphthalate	10	U	10	U	10	U	5	U	5	U	5	Ų	5	U
luoranthene yrene	10	U		U	10 10	U	5	U	5	U	5	U	5	U
utylbenzylphthalate	10 10	U	10	U	10	U	5 5	U	5 5	U	5 5	U		U
3'-Dichlorobenzidine	10	U	10	Ų	10	Ų	5 5	Ų	5	U	5	U	5	U
enzo(a)anthracene hrysene	10 10	U		U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	U
is(2-Ethylhexyl)phthalate	10	Ü	10	U	10	U	1	J	5	U	5	U	1	J
Pi-n-octylphthalate lenzo(b)fluoranthene	10	U	10	U	10	Ų	5	U	5	U	5	Ų	5	U
enzo(b)fluoranthene enzo(k)fluoranthene	10 10	U	10 10	U	10 10	U	5 5	U	5 5	U	5 5	U	5 5	U
enzo(a)pyrene	10	U	10	U	10	U	5 5	U	5	U	5	U	5	U
ndeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene	10 10	U		U U		U U	5 5	U	5	U	5	U	5	
Senzo(g,h.i)perylene	10	U		U	10 10	U	5 5	U	5	U	5 5	U	5	U

Romeoville, Illinois

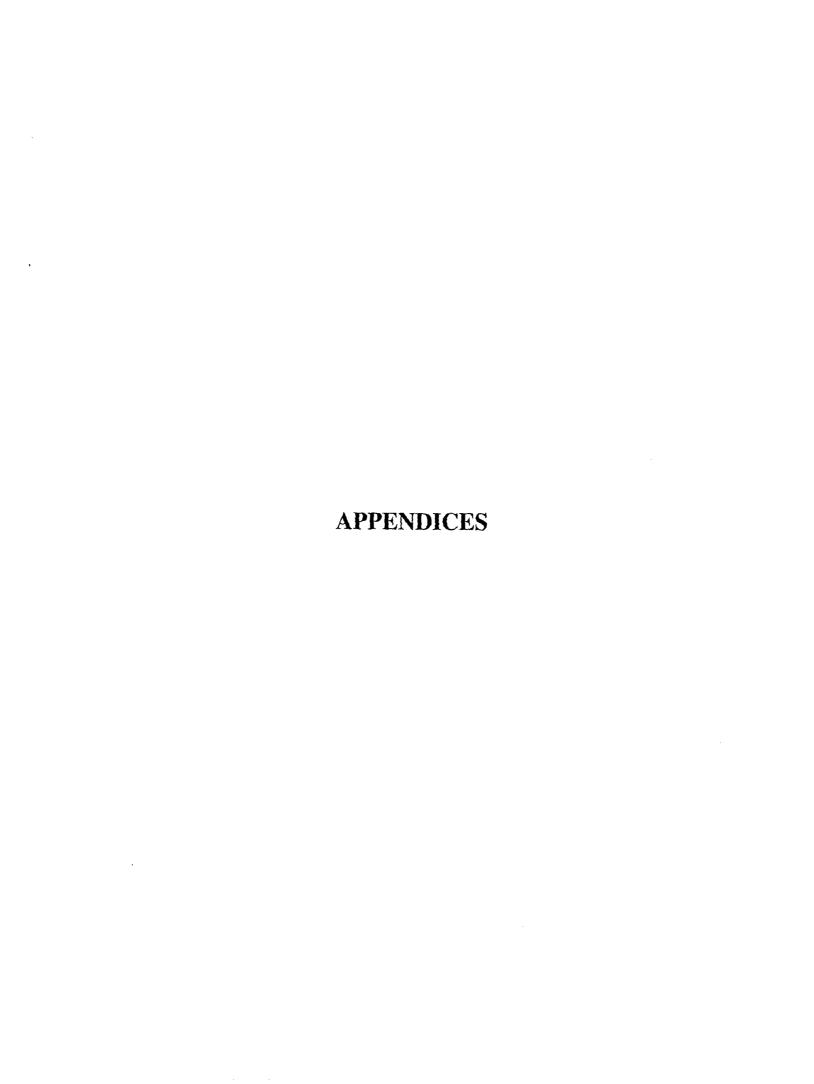
KEY GROUNDWATER & DRINKING WATER SAMPLES TABLE 15

Analytical Results (Qualified Data) Case #: 29298 Site :	SDG : E0013		ER.											
Lab.:	AATSLA	I All VI	LIX											
Reviewer:	AATSLA													
Date:														
Dale .														
Sample Number :	E0013		E0019		E0024		E0007		E0008		E0009		E0004	
Sampling Location :	G101		G102		FB		G201		G202		G203		FB	
Matrix:	Water		Water		Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001		05/22/2001	
Time Sampled :	11:55		13:30		15:40		08:50		08:50		09:20		09:00	
%Moisture :	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
pH:	7.0		7.0		7.0		6.8		6.8		7.4		7.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
alpha-BHC	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	u
beta-BHC	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
delta-BHC	0.050		0.050	U	0.050	Ū	0.010		0.010		0.010		0.010	U
gamma-BHC (Lindane)	0.050	U	0.050	UJ	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
Heptachlor	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
Aldrin	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	
Heptachlor epoxide	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
Endosulfan I	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
Dieldrin	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDE	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan II	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDD	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan sulfate	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDT	0.010	J	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
Methoxychlor	0.50	U	0.50	U	0.50	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin ketone	0.10		0,10	U	0.10	Ų	0.020	U	0.020	U	0.020	U	0.020	U
Endrin aldehyde	0.10	U	0.10	U	0.10	U	0.020	U	0.020	U	0.020	U	0.020	U
alpha-Chlordane	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-Chlordane	0.050	U	0.050	U	0.050	U	0.010	U	0.010	U	0.010	U	0.010	U
Toxaphene	5.0		5.0	U	5.0	U	1.0	U	1.0	U	1.0		1.0	
Aroclor-1016	1.0	U	1.0	U	1.0	U	0.20	U	0.20	U	0.20	U	0.20	U
Aractor-1221		U	2.0	U	2.0	U	0.40	U	0.40		0,40	accessors of	0.40	10000
Aroclor-1232	1.0	U	1.0	U	1.0	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1242	1.0	U	1.0	U	1.0	U	0.20		0.20		0.20		0.20	
Aroclor-1248	1.0	U	1.0	U	1.0	U	0.20	U	0.20	U	0.20	U	0.20	U
Araclor-1254	1.0	U	1.0	U	1.0	U	0.20	U	0.20		0.20		0.20	
Aroclor-1260	1.0	U	1.0	U	1.0	U	0.20	U	0.20	U	0.20	U	0.20	U

Romeoville, Illinois

KEY GROUNDWATER & DRINKING WATER SAMPLES TABLE 16

Case #: 29298 Site : Lab. : Reviewer : Date :	SDG : ME00 ² CLIFFS CON SENTIN		ER											
Sample Number : Sampling Location : Matrix : Units : Date Sampled : Time Sampled : %Solids : Dilution Factor :	ME0013 G101 Water ug/L 05/22/2001 11:55 0.0 1.0		ME0019 G102 Water ug/L 05/22/2001 13:30 0.0 1.0		ME0024 FB Water ug/L 05/22/2001 15:40 0.0 1.0		SO1 G201 Water ug/L 05/22/2001 08:50 0.0 1.0		DO1 G202 Water ug/L 05/22/2001 08:50 0.0 1.0		SO2 G203 Water ug/L 05/22/2001 09:20 0.0 1.0		RO1 FB Water ug/L 05/22/2001 09:00 0.0 1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Fla
ALUMINUM ANTIMONY ARSENIC BARIUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER IRON LEAD MAGNESIUM MANGANESE MERCURY NICKEL POTASSIUM SELENIUM SILVER SODIUM THALLIUM VANADIUM ZINC CYANIDE	168 3.0 4.0 37.9 0.20 0.30 92000 0.70 1.1 0.79 54.6 1.5 48700 1.7 0.10 1.7 3340 3.4 0.80 21900 3.9 0.90 7.8		5680 3.0 5.9 172 0.35 0.30 149000 8.6 5.7 18.3 19700 16.0 55100 5970 0.18 12.4 4950 3.4 4950 3.9 82900 3.9 11.8 64.4	n n	168 3.0 4.0 1.7 0.20 0.30 136 0.70 1.1 0.70 54.6 1.5 132 1.6 0.10 1.5 134 0.80 569 3.9 0.90 0.80	מבים בם בים בים בים בים בים ב	67.9 4.0 2.0 92 0.4 0.3 13400 3.0 0.9 2.0 717.0 2.0 67400 46.9 0.5 2.4 3310 4.0 1.0 53200 8.0 12.1 25.0	U U U U U U U U U U U	63.9 4.0 2.0 91.4 0.5 0.3 133000 3.0 0.8 2.0 714 4.0 0.5 66900 46.6 3390 8.0 1.0 52900 4.0 12.8 25.0	U U U U U U U U U U	53.3 4.0 2.0 36.2 0.3 0.3 100000 3.0 0.4 2.0 6.7 2.0 50000 0.7 0.5 1.5 3070 4.0 11.0 16500 4.0 11.7 2.5 0.0		40 40 4.0 2.0 0.1 0.3 38.5 3.0 0.8 2.0 4.0 0.5 2.0 4.0 4.0 4.0 1.0 2.1 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	

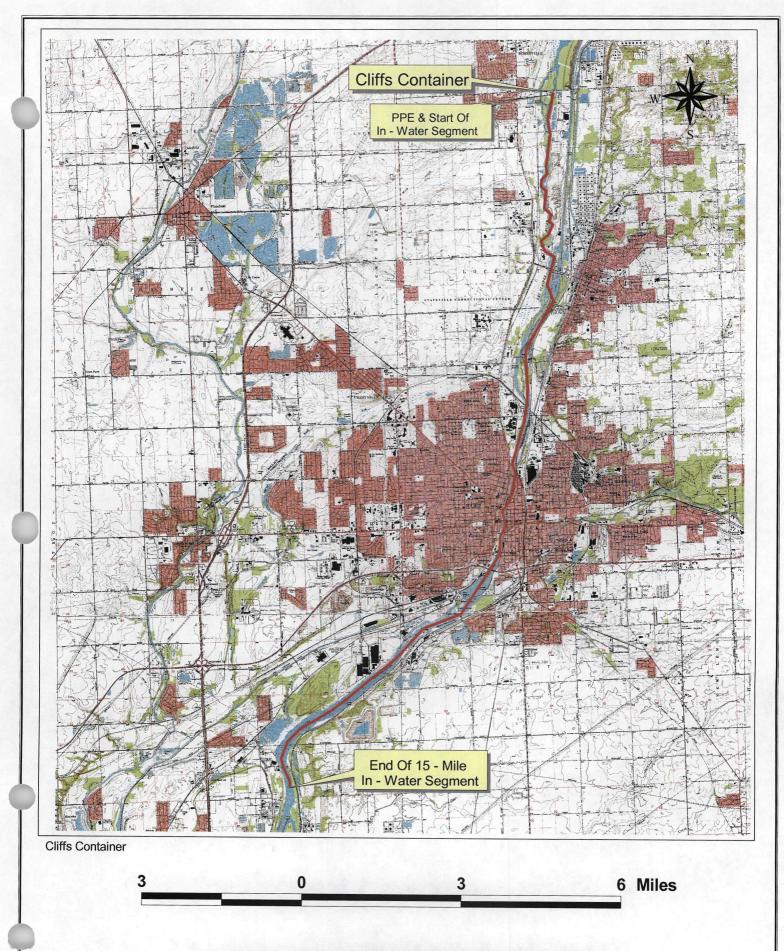


Appendix A

4-Mile Radius Map &

15-Mile Surface Water Route Map

4 - MILE MAP



15 - MILE IN - WATER SEGMENT MAP

Appendix B

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether

Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

TARGET ANALYTE LIST

Inorganic Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc
Iron ,	Cyanide
Lead	Sulfide
Magnesium	

List of PNA's from Target Compound List

Naphthalene

2-Methylnaphthalene

2-Chloronaphthalene

Acenaphthylene

Acenaphthene

Fluorene

Phenanthrene

Anthracene

Fluoranthene

Pyrene

Benzo(a)anthracene

Chrysene

Benzo(b)fluoranthene

Benzo(k)fluoranthene

Benzo(a)pyrene

Indeno(1,2,3-cd)pyrene

Dibenz(a,h)anthracene

Benzo(g,h,i)perylene

Appendix C

Illinois EPA Sample Photographs

CERCLIS ID: ILD 000768481

COUNTY: WILL

DATE: May 22, 2001

TIME: 0850

PHOTO BY: Ken Corkill

SAMPLE: G201 & G202

DIRECTION: NE

COMMENTS: Photo taken of outside spigot at Isle A La Cache Museum.



DATE: May 22, 2001

TIME: 0920

PHOTO BY: Ken Corkill

SAMPLE: G203

DIRECTION: North

COMMENTS: Photo taken of artesian drinking water well on Isle A La Cache Forest Preserve property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1115

PHOTO BY: Ken Corkill

SAMPLE: S101

DIRECTION: South

COMMENTS: Photo taken of sediment sample location at south end of island on which Cliffs is located.



DATE: May 22, 2001

TIME: 1110

PHOTO BY: Ken Corkill

SAMPLE: S102

DIRECTION: SE

COMMENTS: Photo taken of sediment sample location at SE corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1155

PHOTO BY: Ken Corkill

SAMPLE: S103

DIRECTION: NW

COMMENTS: Photo taken of sediment sample location at SW corner of Cliffs property.



DATE: May 22, 2001

TIME: 1155

PHOTO BY: Ken Corkill

SAMPLE: S103

DIRECTION: West

COMMENTS: Photo taken of sediment sample location at SW corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1245

PHOTO BY: Ken Corkill

SAMPLE: S104

DIRECTION: North

COMMENTS: Photo taken of sediment sample location in east channel of Des Plaines River NE of Cliffs property.



DATE: May 22, 2001

TIME: 1315

PHOTO BY: Ken Corkill

SAMPLE: S105 & S106

DIRECTION: East

COMMENTS: Photo taken of sediment sample location in west channel of Des Plaines River NW of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1155

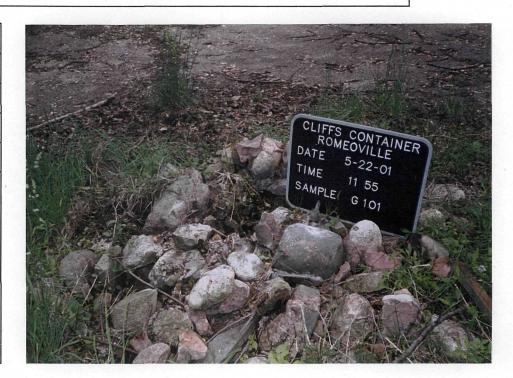
PHOTO BY: Ken Corkill

SAMPLE: G101

DIRECTION: East

COMMENTS: Photo taken

of artesian well located south of Cliffs property.



DATE: May 22, 2001

TIME: 1330

PHOTO BY: Ken Corkill

SAMPLE: G102

DIRECTION: NW

COMMENTS: Photo taken of GW sample location near SE corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1430

PHOTO BY: Ken Corkill

SAMPLE: X101

DIRECTION: NW

COMMENTS: Photo taken of soil sample location near SE corner of Cliffs property.



DATE: May 22, 2001

TIME: 1430

PHOTO BY: Ken Corkill

SAMPLE: X101

DIRECTION: South

COMMENTS: Photo taken of soil sample location near SE corner of Cliffs property.



CERCLIS ID: ILD 000768481

COUNTY: WILL

DATE: May 22, 2001

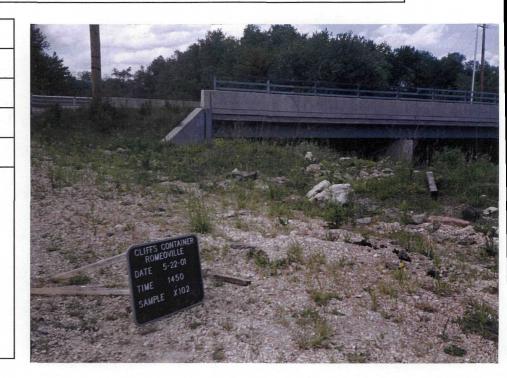
TIME: 1450

PHOTO BY: Ken Corkill

SAMPLE: X102

DIRECTION: NE

COMMENTS: Photo taken of soil sample location near NE corner of Cliffs property.



DATE: May 22, 2001

TIME: 1450

PHOTO BY: Ken Corkill

SAMPLE: X102

DIRECTION: SW

COMMENTS: Photo taken of soil sample location at NE corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1510

PHOTO BY: Ken Corkill

SAMPLE: X103

DIRECTION: East

COMMENTS: Photo taken of soil sample location near NE corner of Cliffs property.



DATE: May 22, 2001

TIME: 1510

PHOTO BY: Ken Corkill

SAMPLE: X103

DIRECTION: West

COMMENTS: Photo taken of soil sample location near NE corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1530

PHOTO BY: Ken Corkill

SAMPLE: X104

DIRECTION: West

Cliffs property.

COMMENTS: Photo taken of soil sample location near north central portion of



DATE: May 22, 2001

TIME: 1540

PHOTO BY: Ken Corkill

SAMPLE: X105

DIRECTION: North

COMMENTS: Photo taken of soil sample location in west central portion of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1540

PHOTO BY: Ken Corkill

SAMPLE: X105

DIRECTION: South

COMMENTS: Photo taken of soil sample location in west central portion of Cliffs property.



DATE: May 22, 2001

TIME: 1600

PHOTO BY: Ken Corkill

SAMPLE: X106

DIRECTION: NW

COMMENTS: Photo taken of soil sample location near NW corner of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 22, 2001

TIME: 1600

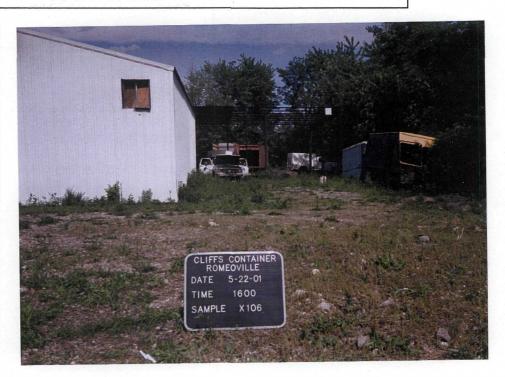
PHOTO BY: Ken Corkill

SAMPLE: X106

DIRECTION: East

Cliffs property.

COMMENTS: Photo taken of soil sample location near west central portion of



DATE: May 22, 2001

TIME: 1620

PHOTO BY: Ken Corkill

SAMPLE: X107 & X108

DIRECTION: West

COMMENTS: Photo taken of soil sample location near SW corner of Cliffs property.



CERCLIS ID: ILD 000768481

COUNTY: WILL

DATE: May 22, 2001

TIME: 1620

PHOTO BY: Ken Corkill

SAMPLE: X107 & X108

DIRECTION: East

COMMENTS: Photo taken of soil sample location near SW corner of Cliffs property.



DATE: May 23, 2001

TIME: 0820

PHOTO BY: Ken Corkill

SAMPLE: X109

DIRECTION: South

COMMENTS: Photo taken of soil sample location near south central portion of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 0820

PHOTO BY: Ken Corkill

SAMPLE: X109

DIRECTION: East

COMMENTS: Photo taken of soil sample location near south central portion of Cliffs property.



DATE: May 23, 2001

TIME: 0835

PHOTO BY: Ken Corkill

SAMPLE: X110

DIRECTION: East

COMMENTS: Photo taken of soil sample location near central portion of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 0835

PHOTO BY: Ken Corkill

SAMPLE: X110

DIRECTION: West

COMMENTS: Photo taken

of soil sample

location near central portion of Cliffs

property.



DATE: May 23, 2001

TIME: 0850

PHOTO BY: Ken Corkill

SAMPLE: X111

DIRECTION: S-SW

COMMENTS: Photo taken

of soil sample

location in central portion of Cliffs

property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 0850

PHOTO BY: Ken Corkill

SAMPLE: X111

DIRECTION: SE

COMMENTS: Photo taken of soil sample location in central portion of Cliffs property.



DATE: May 23, 2001

TIME: 0900

PHOTO BY: Ken Corkill

SAMPLE: X112

DIRECTION: East

COMMENTS: Photo taken of soil sample location near south east central portion of Cliffs property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 0900

PHOTO BY: Ken Corkill

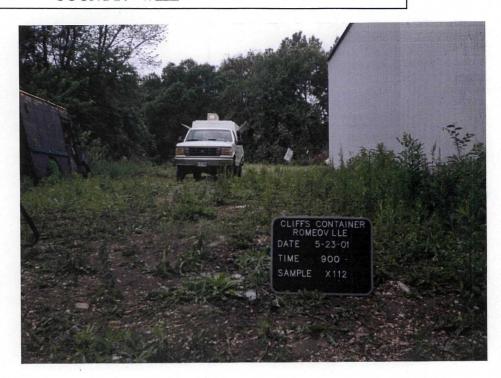
SAMPLE: X112

DIRECTION: West

COMMENTS: Photo taken

of soil sample

location near south east central portion of Cliffs property.



DATE: May 23, 2001

TIME: 0940

PHOTO BY: Ken Corkill

SAMPLE: X113

DIRECTION: NW

COMMENTS: Photo taken

of soil sample

location near central west portion of Cliffs

property.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 0940

PHOTO BY: Ken Corkill

SAMPLE: X113

DIRECTION: East

COMMENTS: Photo taken of soil sample location near central west portion of Cliffs property.



DATE: May 23, 2001

TIME: 1030

PHOTO BY: Ken Corkill

SAMPLE: X114

DIRECTION: NW

COMMENTS: Photo taken of soil sample location in Isle A La Cache Forest Preserve west of Cliffs property, west of the Des Plaines River.



CERCLIS ID: ILD 000768481 COUNTY: WILL

DATE: May 23, 2001

TIME: 1030

PHOTO BY: Ken Corkill

SAMPLE: X114

DIRECTION: East

COMMENTS: Photo taken of soil sample location in Isle A La Cache Forest Preserve west of Cliffs property, west of the Des Plaines River.



DATE:

TIME:

PHOTO BY:

SAMPLE:

DIRECTION:

COMMENTS:

Appendix D

Integrated Assessment Analytical Results

See Volume II of the IA Report